SUBURBAN RAIL LOOP EAST

Stabling network support facility

Urban Design and Landscape Plan

July 2024

SUBURBAN RAIL LOOP AUTHORITY

VICTORIA'S BIG BUILD

VICTORIA State Government

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Acknowledgement of Country

Suburban Rail Loop (SRL) is located on the traditional lands of the Wurundjeri, Bunurong and Boonwurrung People, who form part of the East Kulin Nation.

We proudly acknowledge and respect Victoria's Traditional Owners as the original custodians of the state's land and waters, their unique ability to care for Country and deep spiritual connection to it. We pay our respect to their Elders past and present and emerging, whose knowledge and wisdom has and continues to ensure the continuation of culture and traditional practices.

We are committed to partner and meaningfully engage with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and the creation of enhanced opportunities for Aboriginal people in SRL Precincts.

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Executive Summary

Victoria's population is expected to grow to around 11.2 million by 2056, with Melbourne to be home to around 9 million people – a global city the same size as London today.

The Suburban Rail Loop project (SRL) will deliver a 90km rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport, providing a 'turn-up-and-go' service with quick and convenient interchanges with existing lines, improving how we move around Melbourne and helping it grow in a planned and sustainable way.

Delivered in stages over several decades, the SRL will open up a host of new social and economic opportunities for hundreds of thousands of Victorians by creating greater access and connections to jobs, health services, education and affordable housing.

Construction of SRL East, from Cheltenham to Box Hill, is underway and trains will be running by 2035.

Under the overarching planning approval issued for SRL East, Urban Design and Landscape Plans (UDLPs) are required to be prepared for the development of all permanent and above ground buildings and structures. This UDLP relates to the development of the Stabling network support facility located within the stabling facility at Heatherton.

The Stabling network support facility is required to provide power supply for construction of the underground rail tunnels. Following completion of construction works, the Facility will be reconfigured to service operational power supply requirements for the SRL network.

Given the extent of modifications which will be required to convert the Stabling network support facility to providing operational power, the only permanent structure to be delivered through this UDLP is the building housing the 66kV electrical equipment. All other elements are temporary and will be replaced with the final built form as part of this conversion. These elements are discussed in this UDLP as they inform the design context.

The Stabling network support facility is located where it will have limited visibility to surrounding sensitive interfaces (being the nearby Henry Street Linear Reserve and Kingston Walk Linear Reserve). Extensive sight line analysis has been undertaken that demonstrates this.

Views will be most prominent to the Dingley Bypass, where vehicles will generally view the Stabling network support facility behind a fence and some tree canopies, at a distance, seen whilst travelling 80km an hour. Likewise, views from Kingston Road will be similar, but at a further distance.

Elements of the proposed Stabling network support facility have been designed to ensure it sits comfortably within the surrounding Green Wedge context. These treatments seek to mitigate the visual impact of the building and to improve the visual outcome.

Importantly, the proposed design and construction quality and suggested material palette will inform the design (in future UDLPs) of the Stabling Facility without being overly prescriptive, or constraining future design outcomes.

The UDLP was exhibited to the public for review and comment, as well as key stakeholder parties, including Kingston City Council. Collaboration also occurred with the Urban Design Advisory Panel (UDAP). This consultation occurred in accordance with the requirements of the SRL East Incorporated Document and associated planning approvals.

Feedback gathered from all parties and public comments has been considered where appropriate in the final UDLP. A Consultation Summary report has also been prepared and submitted to the Minister for Planning for consideration as part of the final submission to the Minister of this UDLP for approval.

1. Introduction

1.1 Project Overview

This report accompanies and forms part of the UDLP detailing the proposed Stabling network support facility located within the SRL Stabling Facility at Heatherton.

The full set of UDLP plans and drawings are provided at Appendix A of this document.

The Stabling network support facility forms part of a broader package of preparatory works (Initial and Early Works) required to facilitate construction of the Stabling Facility at Heatherton and the section of underground tunnels between Cheltenham and Glen Waverley.

This UDLP has been prepared by Laing O'Rourke Australia (LOR), which is the Managing Contractor responsible for design and delivery of the broader SRL East Initial and Early Works construction package.

1.1.1 Suburban Rail Loop

The SRL will deliver a 90km rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport, better connecting Victorians to jobs, retail, education, health services and each other. SRL will be delivered in stages over several decades. SRL East involves the construction of 26km of rail line from Cheltenham to Box Hill. Six new underground stations will be delivered as part of the SRL East together with new and upgraded public spaces, transport infrastructure and pedestrian and cycling connections.

Figure 1 shows the location and extent of SRL East in the context of the broader SRL network.

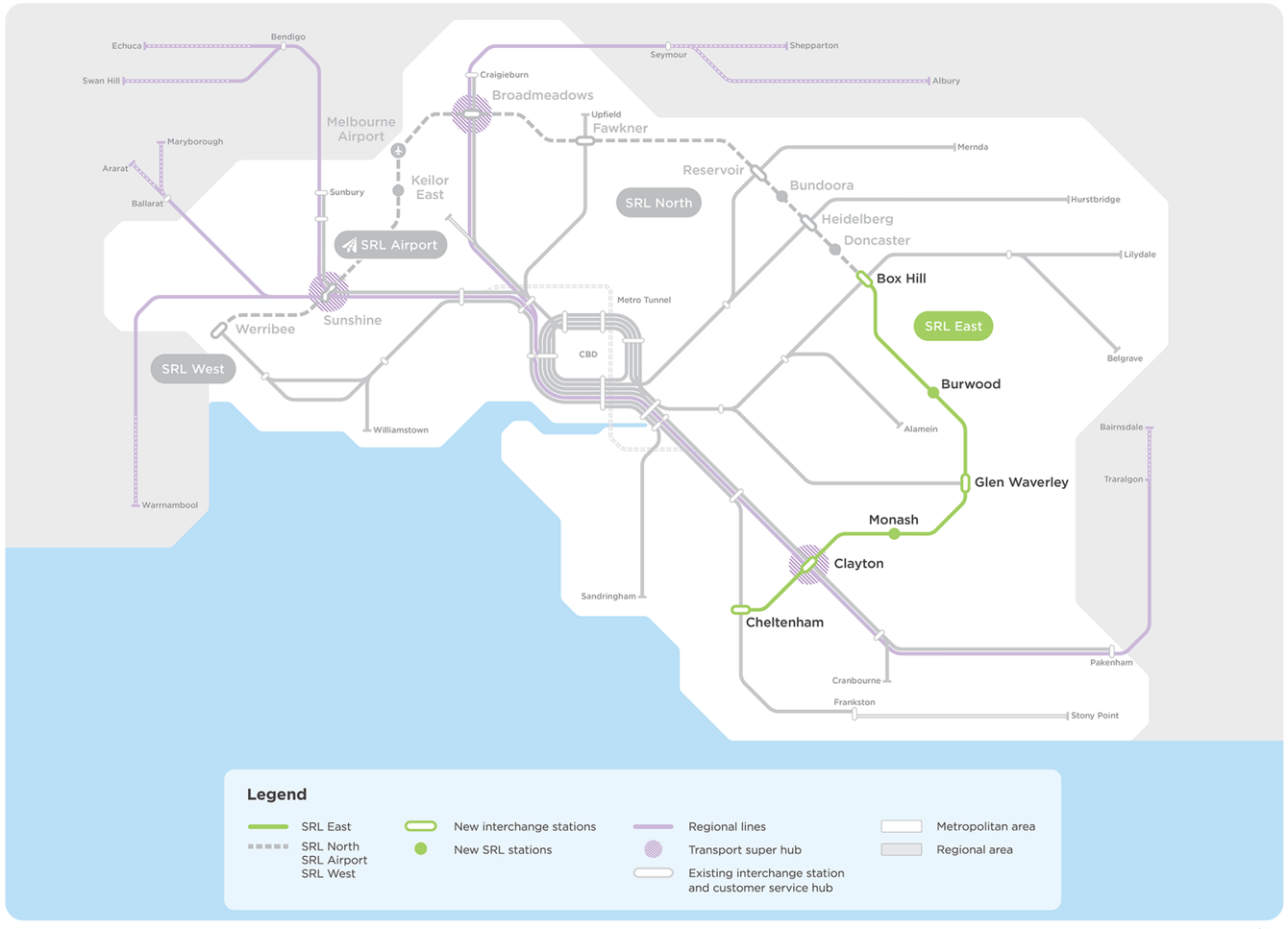

Figure 1. SRL Network map - UDLP location identified in red

NTS

1.1.2 Stabling network support facility

The Stabling network support facility is located within the future SRL East Stabling Facility at Heatherton. The location of the Stabling network support facility in relation to other key infrastructure, including the tunnel portals, and the immediately surrounding area, is detailed on the approved SRL East Surface and Tunnels Plan as shown in Figure 2 below. This plan forms part of the suite of approved planning documents for SRL East, with the general location of the Stabling network support facility having previously been endorsed by the Minister for Planning.

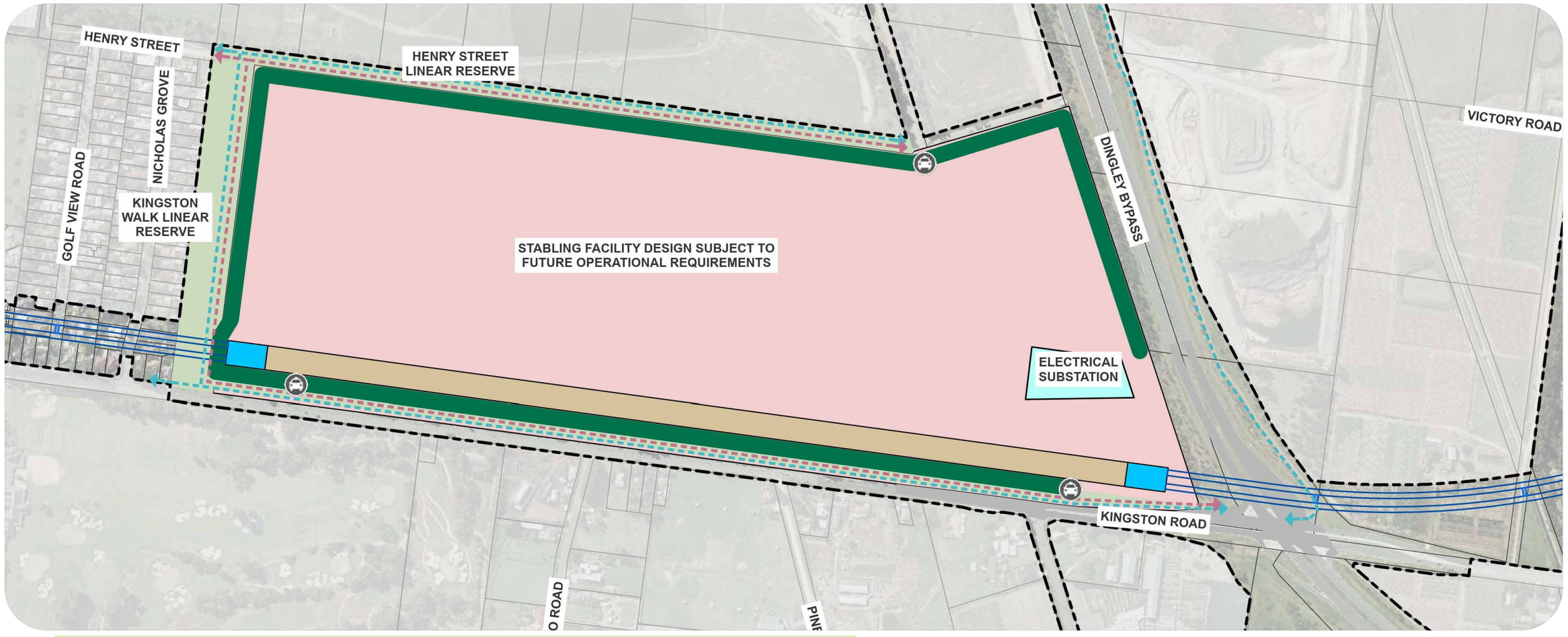

Figure 2. Excerpt from approved SRL Station and Tunnel Plans showing location of the Stabling network support facility within context of the future stabling facility at Heatherton

1.2 Scope and Purpose of this UDLP

As part of the overarching planning approval for SRL East, UDLPs are required to be prepared and approved for all development involving permanent above ground works.

This UDLP has been prepared for the delivery of the Stabling network support facility. The Stabling network support facility is required to power the Tunnel Boring Machines (TBMs) which will construct the underground rail tunnels. Once construction is complete, the 66kV building within the Stabling network support facility will be reconfigured so it can be used to supply operational power for the stabling facility and broader SRL network.

The purpose of this UDLP is to detail the overarching urban design and landscape concept for the design, siting and treatment for all permanent above ground buildings and structures associated with the Stabling network support facility. This is limited to the building housing the 66kV electrical equipment, with all other buildings and structures being removed and replaced as part of the reconfiguration of the Stabling network support facility for operational supply.

This UDLP applies to part of the land located at 217-227 Kingston Road, Heatherton. Figure 3 outlines the UDLP boundary and proposed location of the new Stabling network support facility and associated infrastructure. Full details of all proposed works included in this UDLP are provided in Section 3 of this report.

This UDLP provides a detailed assessment the design in relation to the relevant requirements of the approved SRL East Surface and Tunnel Plan, the Urban Design Strategy (UDS), and Environmental Management Framework (EMF). These three documents form the framework and parameters for how SRL East is to be designed, sited, and managed.

This UDLP does not include the final design and layout of the Stabling network support facility once converted to operational power, or the future Stabling Facility at Heatherton. These are subject to a future UDLP, to be prepared by others.

Figure 3. UDLP context plan

1.2.1 Other Approved UDLPs

The Box Hill tram terminus UDLP was approved by the Minister for Planning on 21 August 2023.

The approved UDLP and supporting documentation can be accessed at *https://engage.vic.gov.au/box-hill-tram-terminus-urban-design-landscape-plan*.

This UDLP details the design, siting and treatment of the proposed 66kV building and associated infrastructure at the future Stabling Facility at Heatherton.

The location of this UDLP in relation to the above is shown in Figure 4.

Figure 4. Approved and proposed SRL East UDLPs

NTS

1 **Box Hill tram terminus UDLP (approved)**

2 **Stabling network support facility UDLP**

1.2.2 Statutory Requirements

The *Suburban Rail Loop East Incorporated Document (August 2022)* provides the primary planning approval for the SRL East project, and forms part of the Kingston, Monash and Whitehorse Planning Schemes.

As per Clause 4.7.1 of the Incorporated Document, a UDLP must be prepared and approved prior to the construction commencing on any permanent above-ground buildings or structures, unless they are defined to the satisfaction of the Minister for Planning as "preparatory buildings and works" under Clause 4.13.2.

This requirement is triggered for the 66kV building as this is a permanent above ground structure which does not fall under the definition of "preparatory buildings and works", and consequently is not exempt from the requirements of Clause 4.7.1.

The requirements for what a UDLP must include and address are identified in Clause 4.7.4 of the Incorporated Document. In addition to detailing the overall design and landscape concept for the development, it must also include an assessment of how the design is in accordance with the relevant requirements of the approved SRL East Station and Tunnel Plan, the UDS and Environmental Management Framework (EMF). These three documents form the framework and parameters for how development of the SRL East project is to be designed, sited, and managed.

An assessment of the UDLP's compliance with the relevant requirements of the Incorporated Document is outlined in Table 1.

Table 1. Incorporated documents requirement response

Incorporated Document Requirement		Response	UDLP Section
4.7.1	Prior to the development of the permanent above ground components of buildings (excluding preparatory buildings and works under Clause 4.13.2), Urban Design and Landscape Plans (UDLPs) must be prepared to the satisfaction of the Minister for Planning.	The 66kV building within the Stabling network support facility and associated works detailed within this UDLP are permanent and above ground. These have been planned prior to commencement of construction and finalisation of detailed design.	Whole document
4.7.3	The UDLPs must show the final built form design of the permanent above ground components of buildings, permanent roads, permanent public realm, permanent primary pedestrian and bicycle routes, permanent bus and tram interchanges and include, where relevant:	-	-
	a) A site layout plan that shows the location of permanent above-ground buildings (including but not limited to stations, ventilation structures, ancillary infrastructure and public realm improvements).	A site layout plan has been prepared showing the location of all works.	3.2 Design Response and Key Elements Appendix A - UDLP Drawing Set, Appendix C Photomatch/Artist Impression
	b) Architectural plans, including sections and elevations, with an approach to materials and finishes.	Architectural drawings have been prepared for the Stabling network support facility, including the 66kV building and associated temporary buildings, with details of the approach to materials and finishes through this report.	3.2 Design Response and Key Elements Appendix A - UDLP Drawing Set , Appendix C Photomatch/Artist Impression
	c) Landscape plans, including sections and elevations, with an approach to plantings.	No new landscape treatments are proposed to be provided in this UDLP due to project constraints, acknowledging there will be opportunities for landscaping once construction of the facility is complete, including as part of the future UDLP for the Stabling Facility at Heatherton.	3.2.7 Landscaping and Screening
4.7.4	A UDLP must be accompanied by the following, where relevant:		
	a) An explanation demonstrating how the UDLP is in accordance with the approved UDS.	A detailed assessment of the UDLP against the relevant requirements of the UDS has been undertaken.	Appendix B - Planning Compliance Assessments
	b) An explanation demonstrating how the UDLP would comply with the relevant EPRs as identified in the approved EMF.	An assessment demonstrating compliance with the relevant EPRs has been undertaken as part of the development of this UDLP.	Appendix B - Planning Compliance Assessments
	c) A plan which shows the extent of the UDLP area in relation to any publicly available or approved UDLP/s for the Project.	A plan showing the location and extent of this UDLP in relation to the approved Box Hill Tram Terminus UDLP has been provided within the UDLP.	1.2.1 Scope and Purpose of this UDLP
	d) An explanation of how the UDLP is generally in accordance with the approved Surface and Tunnel Plans.	An assessment demonstrating that the siting and treatment of the Stabling network support facility (specifically the 66kV building) against the Surface and Tunnel Plans has been undertaken as part of this UDLP.	Appendix B - Planning Compliance Assessments
	e) An explanation demonstrating why the location of the bus interchange and pick up and drop off locations in the UDLP are appropriate and including the detailed design transport and traffic justification following consultation with the relevant stakeholders.	Not applicable to this UDLP – the Stabling Facility at Heatherton does not involve the establishment of a bus interchange or pick up and drop off facilities.	-
	f) An explanation, only in the relevant UDLP, demonstrating the retention or closure of Carinish Road, Clayton or Coleman Parade, Glen Waverley is appropriate and including the detailed design transport and traffic justification following consultation with the relevant stakeholders.	Not applicable to this UDLP – this requirement relates to UDLPs within the Clayton and Glen Waverley SRL precincts only.	-

Table 1. Incorporated documents requirement response continued.

Incorporated Document Requirement		Response
4.7.5	Prior to the submission of an UDLP to the Minister for Planning for approval, an UDLP must be:	
	a) Provided to the UDAP and relevant council/s for consultation. The minimum period for council consultation must be 28 days.	The Urban Design Advisory Panel (UDAP) and Kingston City Council have been consulted through the development of this UDLP. UDAP and Kingston City Council have been provided a copy of the UDLP for their review and comment. The positions of both bodies are provided within the Consultation Summary Report which accompanies the submission of this UDLP.
	b) Provided to the Department of Transport, Melbourne Water, Heritage Victoria, the Department of Environment, Land, Water and Planning (DELWP), Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation, Bunurong Land Council Aboriginal Corporation, the Head, Transport for Victoria and other stakeholders for consultation where relevant.	All stakeholders listed at Section 4.7.5 b) have been provided a copy of this UDLP and invited to make a submission. Records of comments received, consultation undertaken, and how issues have been addressed will be detailed in the Consultation Summary Report following completion of the public exhibition period.
	c) Made available for public inspection and comment on a clearly identifiable Project website. The website must set out details about the entity and contact details to which written comments can be directed during that time and specify the time and manner for the making of written comments. The minimum period for public comment must be 28 days.	The UDLP has been made available for public review and comment via the Engage Victoria website. Records of comments received, consultation undertaken, and how issues have been addressed will be detailed in the Consultation Summary Report following completion of the public exhibition period.
	d) For the avoidance of doubt, consultation in accordance with (a) and (b) can occur prior to, during and after the public inspection and comment period in (c)	This has been noted and included within the consultation program for this UDLP.
4.7.6	Before, or on the same day as an UDLP is made available in accordance with Clause 4.7.5(c), a notice must be:	
	a) Published in a newspaper generally circulating in the area to which an UDLP applies informing the community of the matters set out in Clause 4.7.5(c)	A newspaper notice has been circulated in accordance with this requirement. A copy of this notice will be included in the Consultation Summary Report.
	b) Provided to owners and occupiers, of land adjacent to the area/s to which an UDLP applies, informing them of the matters set out in Clause 4.7.5(c). The minimum period for comment must be 28 days	Direct notice has been undertaken to surrounding land owners and occupiers in accordance with this requirement. Copies of this notice will be included in the Consultation Summary Report.
4.7.7	A UDLP submitted to the Minister for Planning for approval under Clause 4.7.1 must be accompanied by:	
	a) A summary of the consultation carried out under Clause 4.7.5 and Clause 4.7.6, all written comments received and a response to issues raised.	A Consultation Summary Report addressing the requirements of this clause has been prepared following completion of the Public Exhibition period.
	b) Written advice from the UDAP addressing the extent to which the UDLP is consistent with all relevant matters set out in the Minister's Assessment 5 August 2022 made pursuant to the *Environment Effects Act 1978* and the approved UDS	Written advice from UDAP has been finalised and a copy of this advice has been included in the Consultation Summary Report.
4.7.8	A UDLP may be prepared and approved in stages but an UDLP for any stage must be approved before commencement of development (excluding preparatory buildings and works under Clause 4.13.2) for that stage	The works covered by this UDLP are not staged. A separate UDLP will be prepared for the Stabling Facility at Heatherton and operational power Stabling network support facility.

1.3 Stakeholder Engagement

1.3.1 Consultation Undertaken prior to Public Exhibition

Urban Design Advisory Panel (UDAP)

The SRL East UDAP was established under Clause 4.7 of the Incorporated Document to provide ongoing design advice and guidance and advocate for high quality urban design, architecture, landscape architecture and land use planning outcomes to be integrated into the design of Project works at all scales.

The SRL East UDAP includes a representative from the Office of Victorian Government Architect (OVGA), SRLA, the Department of Transport and Planning (DTP), and at least two independent design experts, and a representative from the relevant local council in relation to matters in their land area.

UDAP has provided detailed urban design advice and feedback throughout the development of this UDLP through presentations, workshops and issue of detailed written comments. Key feedback received from UDAP include the following:

- The integration of all facade elements needs to be ongoing as part of developing the design to all for future refinements during design development (such as integration of downpipes) to deal with new information in an integrated way.
- The colouration of concrete panels needs to be further refined through a process of visually assessing physical samples and prototypes.
- Photomatch/artist impressions to be prepared to determine the extent of visibility to the 66kV building that will be possible from surrounding locations.
- The 66kV building should be architecturally treated to ensure the design, materiality and colours provide an appropriate response to the surrounding Green Wedge context.
- Final finishes to be selected should contribute to creating an appropriate visual interest, with features that reflect the surrounding character of the area.
- That the features of the building that are operational requirements (such as openings, downpipes, louvres, etc) are cohesively integrated into the final architectural form.
- The size of the formliner precast concrete panels, and the locations and joints, must be considered and integrated to assist in achieving a cohesive architectural language (when read from the surrounding area).

Utility Service Provider

A significant number of compliance requirements apply to the design of network support facilities to ensure their safe and effective operation. These compliance requirements must be considered and in some cases, determine the final design solution for the interface with the public realm, as well as design of the critical electrical equipment and infrastructure.

An extensive consultation process commenced with United Energy (UE) in April 2023. Throughout this process, LOR and Beon reviewed their legislative, technical, operations and safety requirements to develop the design for the Stabling network support facility. This process entailed fortnightly design co-ordination meetings with UE, SRLA, Beon and their designer, WSP.

Relevant feedback from UE resulted in the addition of awnings above control room doors, refinement of ventilation to parts of the building, changes to the design of the fencing and consideration of materials and colours used for the proposal (noting for instance, dark colours were avoided as they may 'overheat' the building').

These requirements are discussed further in Section 3.1.

Kingston City Council

Council has been consulted and kept informed throughout the Stabling network support facility design process and preparation of this UDLP. A targeted briefing outlining the key components of the UDLP and design response was presented to Council prior to the commencement of the public exhibition period, providing an opportunity for preliminary feedback ahead of Council's formal response.

Public Authorities

Consultation has been undertaken with the DTP, Department of Environment, Energy and Climate Action (DEECA), Melbourne Water and Heritage Victoria, including provision of pre-exhibition briefings, through the development of this UDLP.

1.3.2 Public Exhibition

The UDLP was exhibited from 20 February 2024 to 20 March 2024. During the public exhibition period the UDLP was hosted on the Engage Victoria website along with supporting project information and documentation to assist people in gaining an understanding of the Stabling Network Support Facility and its relationship with the broader SRL East project.

The website also specified the timeframes and format in which written comments on the UDLP were required to be submitted, as well as phone and email contact details for the SRLA.

A total of 26 submissions were received during the public exhibition period from members of the broader community, in addition to a submission from Kingston City Council. The key issues raised in these submissions can be summarised as follows, noting some are outside of the scope of this UDLP (not listed in order of priority):

- Preference for landscaping, water sensitive design, and changes to the topography around the Stabling network support facility.
- Requests for alteration to the design and materiality of the Stabling network support facility, as well as a reduction in height of the facility.
- Concerns raised around noise, dust, electrical safety and fire, as well as broader construction related matters.
- Queries raised around the views possible to the Stabling network support facility from various locations.
- The provision of broader public benefits to the surrounding community through construction and facilities provided on Site.
- Concerns regarding the quality of the building design, and it's long term impact on the landscape.
- Provision of artworks on the Stabling Network Support Facility.
- Consistency of the proposal with Council's Green Wedge Management Plan 2023.

These submissions have been considered and updates made to the UDLP where appropriate. A detailed summary of all written comments received and the Project responses forms part of the UDLP submission to the Minister for Planning for approval.

2. Site Context

2.1 Location and Tenure

The land subject to this UDLP ('the site') is located at the south-east corner of the future Stabling Facility at Heatherton (Figure 5). This property is irregular in shape ,with frontages to both Kingston Road and the Dingley Bypass. It has a total area of 2.99ha. This UDLP applies to 1ha of land in the southern part of the property.

This property has already been acquired by SRLA for the delivery of the SRL East project.

The site is encumbered by a drainage and sewerage easement running along the northern boundary of the site. Whilst not yet registered on title, the Western Port - Altona - Geelong (WAG) oil pipeline is proposed to be relocated from its current location in the Old Dandenong Road road reserve to the eastern site boundary, within a 7m wide easement.

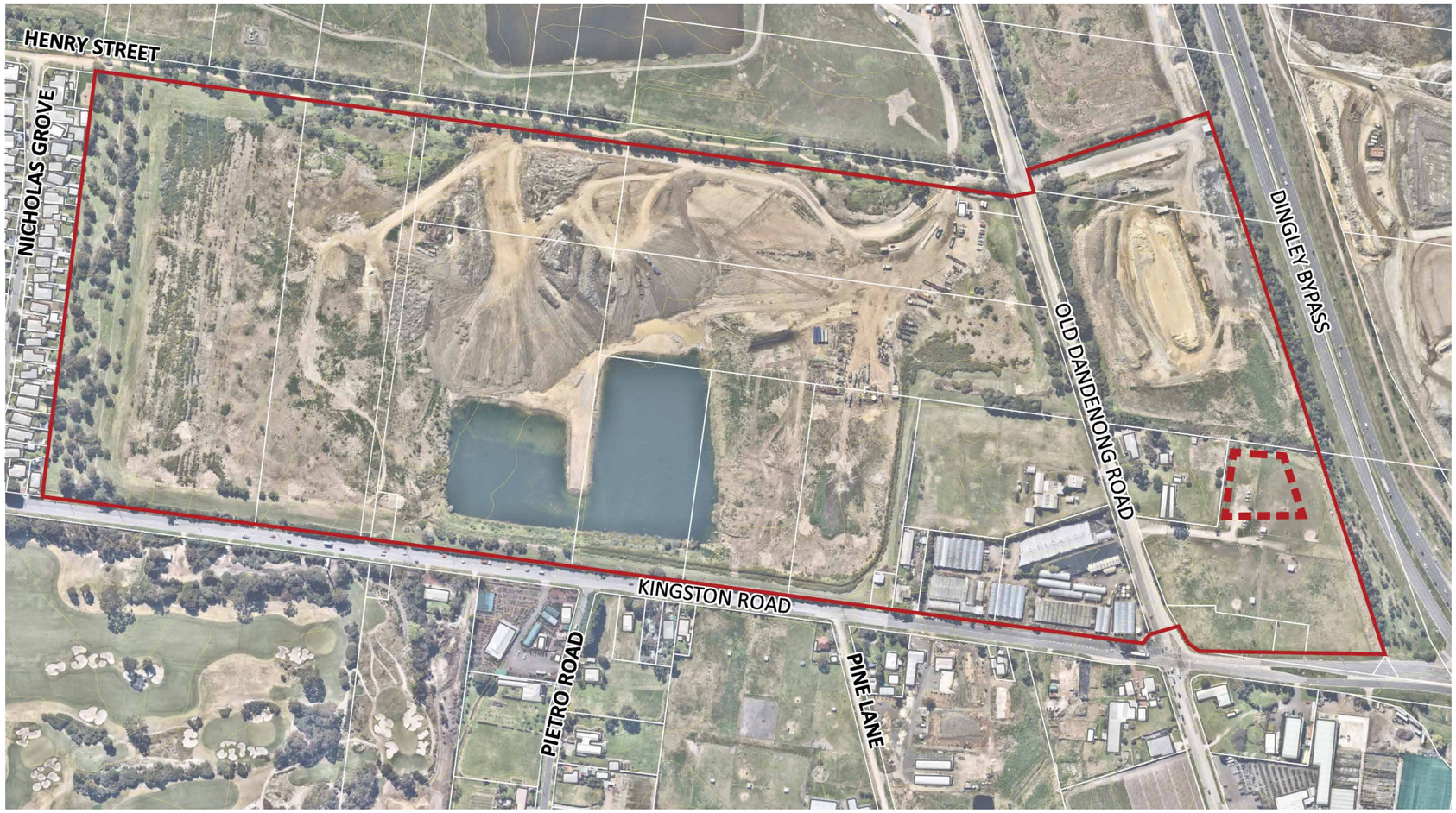

Figure 5. Site Location Map

2.2 Existing Conditions

The site is currently being prepared through the site establishment phase of the project, having most recently been used as a private dog park. It is largely cleared of vegetation, with the exception of scattered small to moderate scale shrubs along the northern boundary.

Access is via a partially sealed crossover and driveway from Old Dandenong Road, with an informal gravel car parking area having been established near the western site boundary.

A 2.4m high chain link fence with branded mesh has been constructed along Kingston Road to the south, Old Dandenong Road to the west and the Dingley Bypass to the east. This has been approved within other statutory approvals and is not part of this UDLP. The fencing will remain in place as works progress across the balance of the Stabling facility at Heatherton.

The proposed works outlined in this UDLP do not alter the existing surrounding conditions outlined above.

2.3 Surrounding Context

The UDLP site directly abuts and is surrounded by land currently or in the process of being acquired by SRLA for delivery of the Stabling Facility at Heatherton. Its only direct interface is with the Dingley Bypass road reserve to the east. This includes a wide landscaped buffer directly adjacent to the eastern site boundary, which was planted as part of the road construction in 2016.

The surrounds presents as a distinctly semi-rural landscape, dominated by vegetation and topography (including soil embankments) rather than significant built form. The Henry Street Linear Reserve runs along the northern boundary of the Stabling Facility at Heatherton, before terminating at Old Dandenong Road, approximately 370m north west of the site. This reserve contains patches of remnant vegetation and is highly valued by the local community for its environmental, landscape and recreational values, and links through to Kingston Walk Linear Reserve to the west and Karkarook Park to the north.

Land to the south (opposite Kingston Road), comprises a mix of semi-rural uses, such as market gardens, golf courses and nurseries, interspersed with rural residential dwellings and the local Uniting Church. Kingston Road itself is a designated arterial road carrying heavy vehicles, from which there are currently views to the temporary site hoarding located on the southern boundary of the site.

Further west, there is a marked transition to conventional suburban residential development north of Kingston Heath Golf Club. This development directly abuts the Heatherton stabling facility and sits approximately 10m above the level of the UDLP site. Vegetation within the Kingston Walk Linear Reserve and Lantrak site to the north provide significant filtering of views and landscape amenity.

Figure 6. Kingston Road and Dingley Bypass signalised intersection - looking west

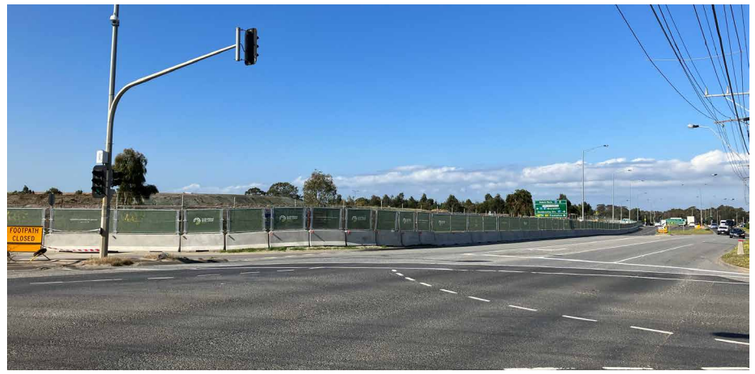

Figure 7. View north-east, from the Kingston Road and Old Dandenong Road intersection, showing the southern site boundary

3. Project Description

3.1 Scope of Works

The scope of works subject to this UDLP is limited to the building housing the 66kV electrical equipment.

The following elements are also detailed in this UDLP as they are being delivered as part of the Stabling network support facility development and consequently form part of the design context.

However, these are temporary and will be removed once the Stabling network support facility is reconfigured for operational power:

- 22kV electrical equipment and housing.
- Auxiliary transformer and Natural Earth Resister (NER).
- Construction Power (CP) transformer, to be enclosed by fire walls on all sides.
- Construction of a 3m high weld mesh fence around the Stabling network support facility site, forming the boundary of this UDLP.
- Other ancillary elements to be provided through the substation.

The scope of works associated with the Stabling network support facility covered by this UDLP can generally be summarised as follows:

- Construction of a new 66kV electrical substation, as well as its architectural treatment and finishing (permanent).
- Construction of the 22kV building and CP Transformers. High voltage feeders will also be installed as part of the works (temporary).
- Construction of a 3m high weld mesh fence around the network support facility (temporary).
- Construction of a structure around the 66kV building, which internalises the structure (permanent).
- Provision of maintenance access to the Stabling network support facility via Old Dandenong Road. This includes formalising some of the existing gravel road in this location (temporary).

Figure 8 includes details of the temporary and permanent structures.

No vegetation is proposed to be removed as part of this UDLP.

LEGEND

- UDLP site boundary 3.0m high security fence (temporary)
- Proposed permanent building structures
- Proposed Initial Early Works (IEW) building structures (temporary)
- Proposed access road (temporary)
- Contours - 0.5m interval
- Contours - 0.1m interval

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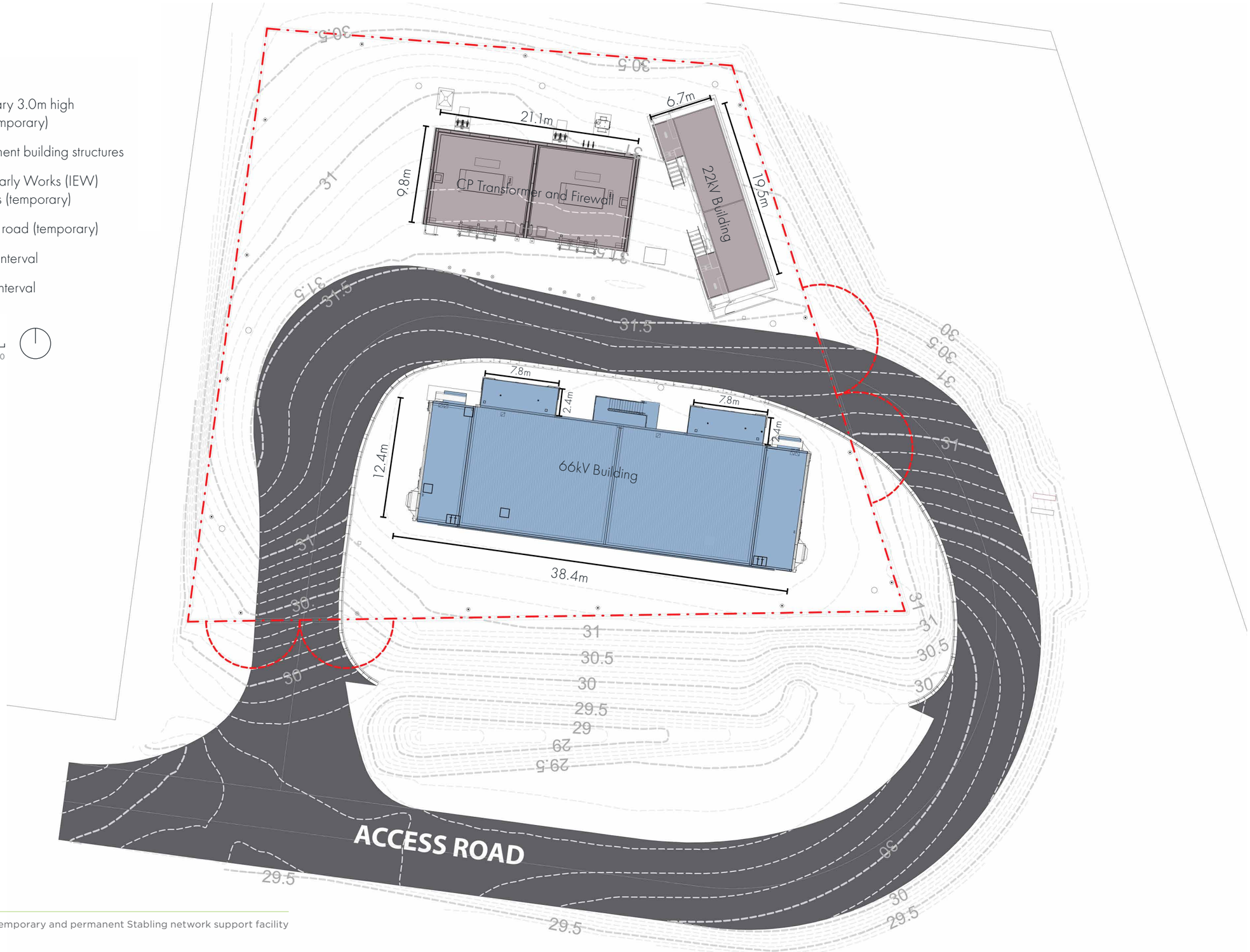


Figure 8. General arrangement of the temporary and permanent Stabling network support facility elements

3.1.1 Functional and Operational Considerations

Consultation with the maintenance and construction teams at SRLA, as well as DTP, has resulted in the incorporation of the following functional and operational considerations in this UDLP.

Maintenance access

The proposed Stabling network support facility will need to be accessed by large vehicles (including trucks). The proposed access road / loop, as well as access gates, have been designed in order to provide sufficient space for these vehicles to access the site. The access road / loop connects to Old Dandenong Road.

It is noted that Old Dandenong Road is being closed to public use (not part of this UDLP), but will be accessible for vehicles that are accessing the Stabling network support facility and other general construction activities.

Security

Provision of security fencing to the full perimeter of the site is required to restrict public access, prevent both theft and the risk of electrocution. Fencing must be to a minimum height of 3m and inclusive of a barbed wire topper.

Awning

UE requested that the addition of an awning was made to be located above each of the control room doors, as per their operational requirements.

Colours and materials

Colours and materials were selected carefully for the proposed Stabling network support facility, to ensure they did not conflict with the operation of the building. For instance, darker colours have been avoided to ensure that the building does not 'over-heat', whilst other materials have also been avoided due to their incompatibility with the operational requirements of the facility.

3.1.2 Staging and Integration with Future Works

The Stabling network support facility will provide electricity for the SRL East project in two separate phases:

Phase One - Construction Power

This Stabling network support facility is required to power the Tunnel Boring Machine (TBM) and other construction equipment necessary to build the underground rail tunnels. All buildings delivered during this phase are temporary and will be removed during Phase Two, except the 66kV building.

This UDLP provides the design response for Phase One.

Phase Two - Operational Power:

Once construction works are complete, the Stabling network support facility will be significantly modified to supply operational power for the SRL network (powering trains and other essential systems).

As all built form elements and above ground structures delivered during this phase will be permanent, a separate UDLP will be prepared which will guide the design and interface treatments for the ultimate Stabling network support facility configuration.

Future Proofing

This UDLP has carefully considered the implications of the infrastructure, servicing and siting requirements of both the future operational power Stabling network support facility and broader Stabling Facility at Heatherton.

The location and internal arrangement of the Stabling network support facility have been designed to protect the spatial requirements for construction of the Tunnel Access Structure (TAS) located directly to the south, which will provide the launching point for construction of the underground tunnels, as well as accommodating future development to the north and west.

Its location directly adjacent to the Dingley Bypass road reserve also allows for direct connection of the high voltage feeders into the future utilities corridor being delivered as part of the broader SRL Early Works construction program.

3.2 Design Response and Key Elements

3.2.1 Siting and Access

The final location of the Stabling network support facility (Figure 9) has been influenced by a number of technical factors. This includes:

- Ensuring the proposal did not compromise the future planning of the Stabling Facility and the required facilities, services and associated land likely required for that future use and development
- The need for the Stabling network support facility to be located in close proximity to the future TAS structure and TBM
- The need to ensure vehicle access for maintenance vehicles, including the need to manoeuvre in and around the Stabling network support facility
- The requirements of the future operator
- The statutory requirements of the approved planning documents, specifically the approved Surface and Tunnel Plans, in determining the general location of the facility.

Notwithstanding the above, siting the Stabling network support facility close to the eastern boundary has also allowed the proposal to take advantage of the local typography and vegetation, to assist in providing visual screening from surrounding sensitive viewpoints (such as the Henry Street Linear Reserve and Kingston Walk Linear Reserve).

By virtue of future construction activities likely occurring south of the Stabling network support facility (between the Stabling network support facility and Kingston Road), it will also be viewed as part of the broader area of construction activity occurring within the south-east corner of the Stabling Facility at Heatherton.

Further detail on the potential visibility of the proposal is provided in the following section of the report, whilst a full visual analysis and cross sections are provided within Appendix A.

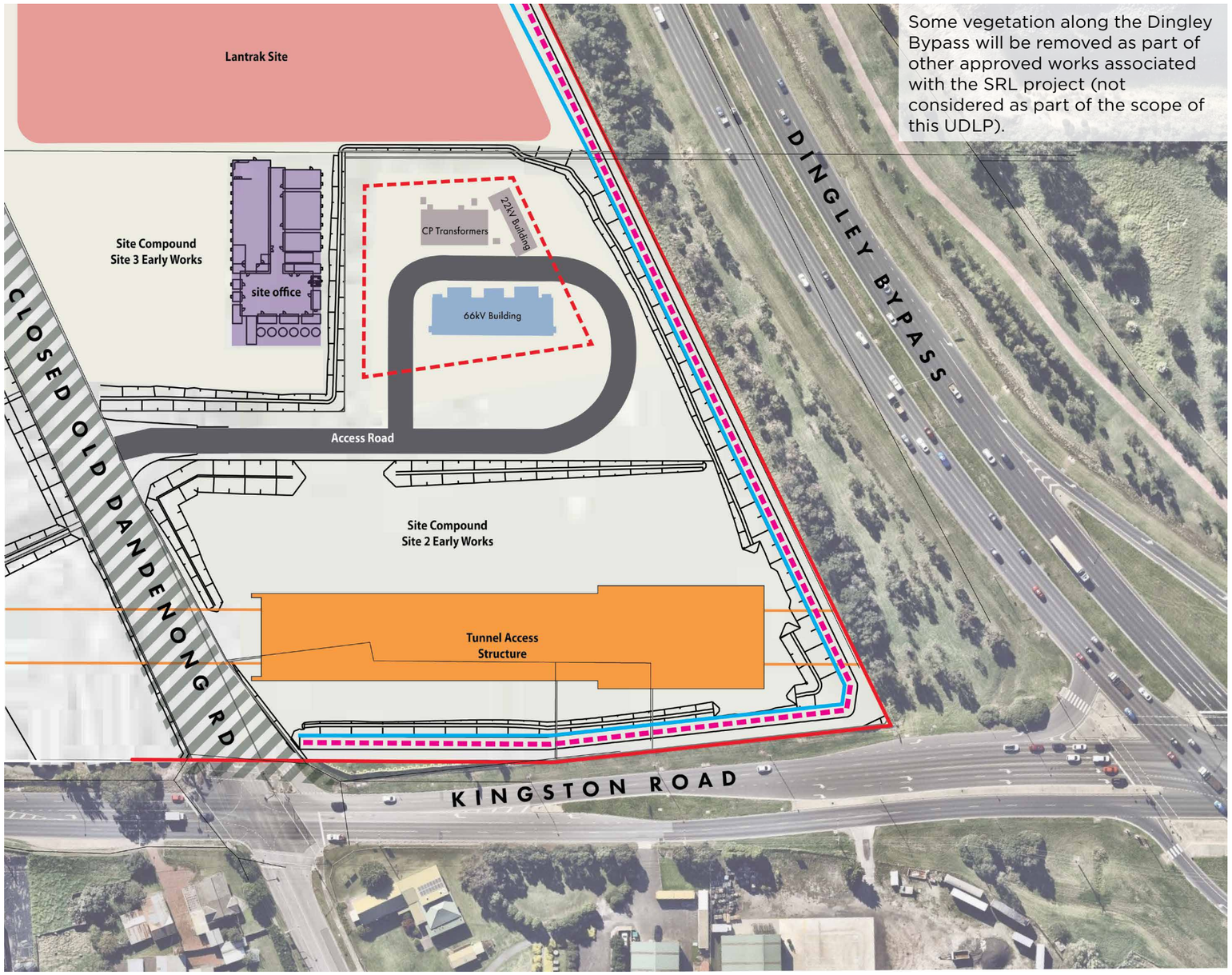


Figure 9. General arrangement of the temporary and permanent Stabling network support facility elements with the context of the broader precinct east of Old Dandenong Road

3.2.2 Design intent

The series of buildings composing the Stabling network support facility are intended to be read as a collection of related structures in the landscape. This is irrespective of their temporary or permanent nature on the site.

Cues from the surrounding landscape and the site's history are used as design drivers to inform the response for the permanent structure. The 66kV building includes visual and textural pattern through the upper portion of the building facade, which is visible from a number of vantage points.

The temporary structures (the transformer firewall and the 22kV building) will serve in a supporting capacity to the 66kV building, while still being of robust, utilitarian materials and finishes. While different to the 66kV building, they have been designed in a way that allows the series of objects to be read as a collective, within a select palette of colours and materials.

Sand mining

Historically the Stabling Facility precinct at Heatherton supported sand quarrying which was important to the growth and construction industry of Melbourne. Large sand mines operated along the sand-belt from Cheltenham through to Heatherton (as seen in Figure 10 and Figure 11).

The quarrying activity dramatically modified the landscape of the area, where further utilisation of the quarrying pits as landfill sites commenced in the late 1900s. This exposed the underlying geology of the land to the workers and lay-people, uncovering the varying tones and textures of the earth.

Ecology

There are thirty different indigenous plants and vegetation groups straddling the two pre 1750-Ecological Vegetation Classes (EVC's) that cover the site (some of these species are shown through Figure 12 to Figure 19), and as such reflect a unique cross section of plant types specific to the area. The plants feature elongated forms and patterns across the leaf and flower structures, including serrated edges, double compound leaves and repetitious linear forms which capture and reflect light in unique ways, casting different shadows and patterns across their surface.

Design response

The site's geology, the layers of varying soil types, strata, colours, and qualities, combined with the indigenous plant species of the area and their unique architecture and form have been used as points of reference for the design of the upper portion of the 66kV building.

An undulating horizontal pattern of varying depth and surface height is proposed for the upper facade, achieved through a precast concrete panel pattern (formliner) that will present as a three dimensional response to the site's historical and present context. The repetition and depth of the pattern will create a play on light and shadow, akin to the play on light across the foliage of some indigenous plants.

Visually, the surface layers may change in appearance when the sun strikes at different angles, causing tonal colour shifts. This allows the building to appear to change across the seasons as the sun changes angle through the year, casting differing shadows across its surface. The proposed light coloured finish to the upper portion of the building will reflect the muted colours, strata, and geology of the site, tonal layers of colour which will change in appearance when the sun strikes at different angles under varied atmospheric conditions.

The final colour of the formliner section of the building will be selected subject to prototyping and samples of the textured precast, however, it will be from within the selected palette within Table 4 of this UDLP. It is in the nature of precast panels that some variation in colour can be expected.

Figure 10. Historic view, west showing Old Dandenong Road and Kingston Road, and the range of sand quarrying activity in the area.

Figure 11. Historic view, showing sand mining in operation.

Figure 12. Dianella admixata - Spreading Flax-lily

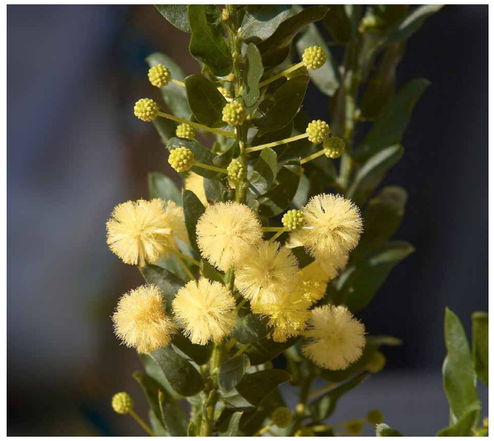


Figure 13. Acacia paradoxa - Hedge Wattle

Figure 14. Kunzea leptospermoides - Yarra Burgan

Figure 15. Cassinia arcuata - Drooping Cassinia

Figure 16. Banksia marginata - Silver Banksia

Figure 17. Acacia mearnsii - Black wattle

Figure 18. Leptospermum continentale - Priclky Tea-tree

Figure 19. Acacia implexa - Lightwood

3.2.3 Built Form and Materiality

Whilst the Stabling network support facility includes a number of built form and structural elements, due to the level of screening provided by the existing 2.4m chain link mesh fence with branded fabric located on Kingston Road and the Dingley Bypass, location of topographical elements and vegetation, and overall distance of the Stabling network support facility from the broader public realm, only four elements will be visible from outside the Stabling Facility at Heatherton, as outlined in Table 2 below:

Table 2. Visible buildings and structures

Element	Height
66kV building (permanent)	Approx 10.6m
22kV building (temporary)	Approx 5.5m
Transformer firewall (temporary)	Approx 5.5m
Transformer (temporary)	Approx 6.7m
Weld mesh security fence with barbed wire topper (temporary)	3.0m

66kV Building (permanent)

The 66kV building must respond to the functional and operational requirements of housing the internal electrical components of the Stabling network support facility. However, the exterior of the structure has been architecturally treated to ensure an enduring, high quality built form is established, setting a positive precedent for the future built form standard across the Stabling Facility at Heatherton.

The external faces of the 66kV building have been designed to reduce the visual impacts in its current context within the Green Wedge. Ultimately this has been achieved through key design measures, including:

- Delineating the upper and lower levels of the building with differing materials and finishes.
- Providing a precast concrete panel formliner, with an undulating horizontal pattern on the upper portion of the building, inspired by the site's ecology and history (as outlined in section 3.2.2).
- Aligning the control room roof-line to sit within the larger 66kV building shape.
- Providing a muted coloured tone to the formliner precast concrete panels, referencing the Site's ecology and history in the area.
- Utilising a textured concrete precast panel finish at ground level to ensure a higher quality and tactile environment experienced by maintenance staff.
- Dark finishes linking the openings, louvres, roller doors and entrances to the building in a uniform and considered manner.

Design Response

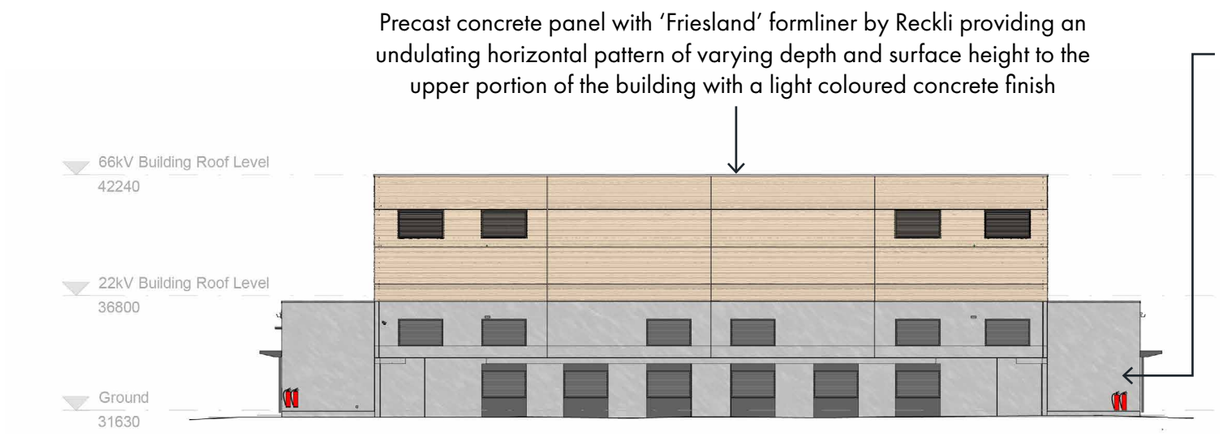
The considered approach to the 66kV building ensures that the operational requirements associated with the building are integrated cohesively into the overall architectural language of the structure. Key elements to the operation of the building (such as exhaust louvres, vents etc) have been reviewed and modified to assist in either minimising their appearance or aligning them as key features of the form. Their location may be refined based on revised engineering and electrical requirements through the design process.

The design intent for the 66kV building is to minimise interruption to the patternation across the building, economising the presence of the panel joints in consideration of the architectural language of the building.

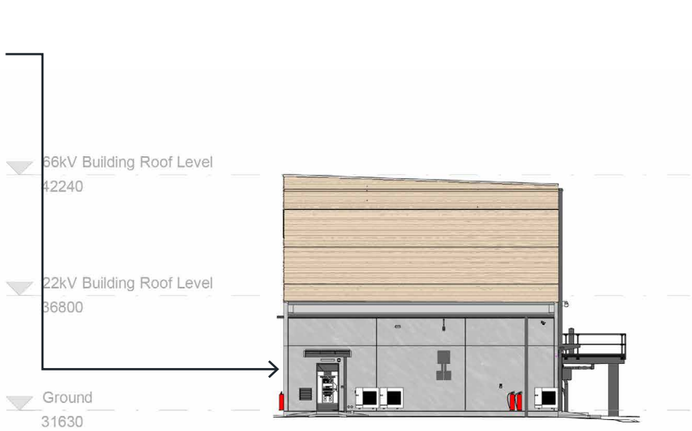
Specifically, elements of the design include:

- The selection of the 'Friesland' formliner by Reckli over 'Columbia' by Reckli, which was previously publicly exhibited in February 2024; 'Friesland' allows for an undulating horizontal pattern of varying depth and surface height across the upper portion of the building.
- The proposed precast panel construction methodology allows for the formliner pattern to be applied on the end of the concrete panels, allowing for minimal interruption along the horizontal alignment, avoiding blank end panels and exposed joints.
- The 20mm depth variation of the pattern, and variation in the pattern width enables clear perception of light and shadow across the surface, enhancing its three-dimensionality of the upper structure. The depth has considered the design intent, the ease of maintenance and its durability, as well as engineering requirements for the panels and their function within the context of the network support facility.
- The inclusion of the coloured oxide to the formliner precast concrete panels on the upper portion of the 66kV building references the Site's ecology and history, and responds specifically to select community and stakeholder feedback received through the consultation phase.
- The provision of two distinct components of the building (a lower and upper portion) also highlights the unique design of the upper portion to the surrounding area, whilst breaking up the mass of the form. The provision of two key portions of the building also ensures a simple and uncluttered visual presence whilst responding to the concern from the community about the presence of the structure.

Elevations of the 66kV building can be seen in Figure 20.

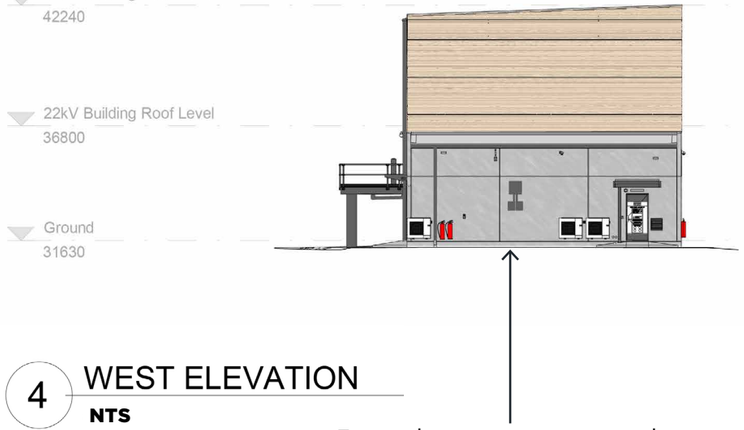


1 SOUTH ELEVATION
NTS



2 EAST ELEVATION
NTS

3 NORTH ELEVATION
NTS



4 WEST ELEVATION
NTS

Vertical painted bands in 'Basalt' Colorbond colour highlighting the vents/access doors/roller doors into uniform opening across the building

Control Room awning for weather protection

Textured precast concrete panel to the lower half of the 66kV building

Figure 20. 66kV building elevations detailing the proposed design treatment

22kV Building (temporary)

The 22kV building is elevated approximately 1.5m from the ground, and clad in a steel Colorbond steel finish. To ensure consistency with the 66kV building, it is proposed that the 22kV building be finished in the same Colorbond 'Surfmist' colour, specified in a matt finish to reduce glare.

The building will be partially screened by the existing 2.4m chain link mesh fence with branded fabric located on the eastern boundary of the broader Stabling Facility at Heatherton along the Dingley Bypass, however the top portion of the building will remain visible.

The views to the 22kV building from Kingston Road are screened by the taller 66kV building.

Longer views of the 22kV building are partially or fully obscured by land form and existing vegetation along the Kingston Walk Linear Reserve, and the Henry Street Linear Reserve.

Transformer firewall (temporary)

The transformer firewall is 5.5m tall, and performs a role as a physical obstruction should the transformer catch on fire to limit the spread of fire.

The firewall is proposed to be constructed of precast concrete panels, without a textured finish.

The transformer firewall is mostly screened by the existing 2.4m chain link mesh fence with branded fabric located on the eastern boundary of the broader stabling facility at Heatherton along the Dingley Bypass, with the 22kV building located between the firewall and the road reserve. However, small portions of the firewall may remain visible in some locations.

The views to the transformer firewall from Kingston Road are screened by the taller 66kV building.

Longer views of the transformer firewall are partially or fully obscured by land form and existing vegetation along the Kingston Walk Linear Reserve, and the Henry Street Linear Reserve.

Weld mesh security fence with barbed wire topper (temporary)

The temporary security fence will be located on the perimeter of the Stabling network support facility, providing a secure and safe working Environment.

The 3.0m weld mesh fence inclusive of barbed wire topper is temporary, in that it will be in situ until further UDLPs require a change to fence configuration and alignment through Operation Power stages.

The fence will be in addition to the existing 2.4m high chain link fence with branded mesh along Kingston Road and Dingley Bypass, which has been erected as part of other approvals, as illustrated in Figure 9.

3.2.4 Colour Finishes

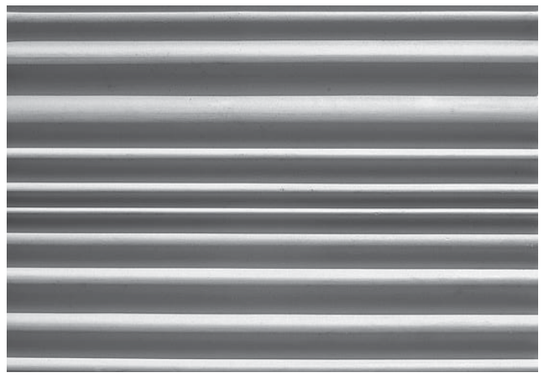
A simple palette of materials has been selected that reflects the industrial nature of the building whilst responding to the natural qualities of the surrounding setting.

The proposed materials palette does not restrict the architectural treatment of other built form elements as part of the ongoing Stabling Facility at Heatherton, as the palette is general in nature, and can be adapted in a variety of ways without limitation. Where precast concrete elements are required, they will be subject to prototyping and sampling on site.

Table 3. Visible buildings and structures

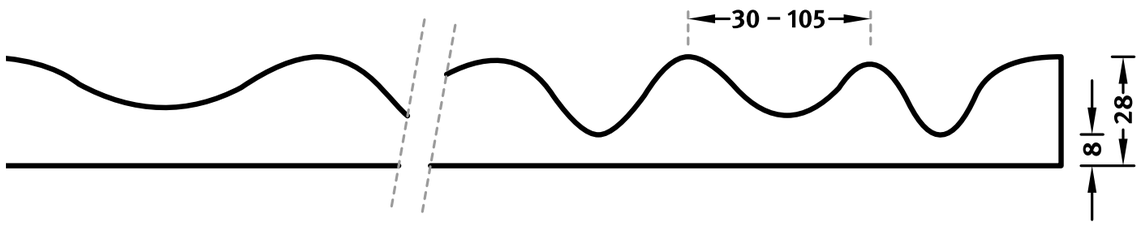
Building	Element	Finish
66kV building (permanent)	Upper portion	Precast concrete panel with formliner with an undulating horizontal pattern of varying depth and surface height, with a muted colour tone (selected from the palette within Table 4).
	Lower portion	Textured precast concrete panel with some limited Colorbond 'Basalt' paint/ powdercoat in a matt finish
	Doors, louvres, hand rail, roller doors etc	Colorbond 'Basalt' paint/ powdercoat in a matt finish
22kV building (temporary)	Steel cladding	Colorbond 'Surfmist' powder coated panels in a matt finish.
	Doors, roller doors etc	Colorbond 'Basalt' paint/ powdercoat in a matt finish
Transformer firewall (temporary)	Concrete panel	Precast concrete panel
Weld mesh fence with barbed wire topper (temporary)	3.0m	Natural zinc finish

Table 4. Material examples



Horizontally aligned textured formliner 'Friesland' by Reckli, for precast concrete upper portion of the 66kV building only

Example of the 'Friesland' formliner by Reckli, used in other projects (Bluewaters, Dubai, United Arab Emirates by Woods Bagot)



Dimensional depth profile for the 'Friesland' formliner by Reckli, for precast concrete upper portion of the 66kV building only (dimensions shown in mm)

BASALT

Matt finish Colorbond colour to elements of the 66kV building, including vertical painted treatment around the vents, personal access doors, roller doors, and railing, and the access doors to the 22kV building creating a robust finish

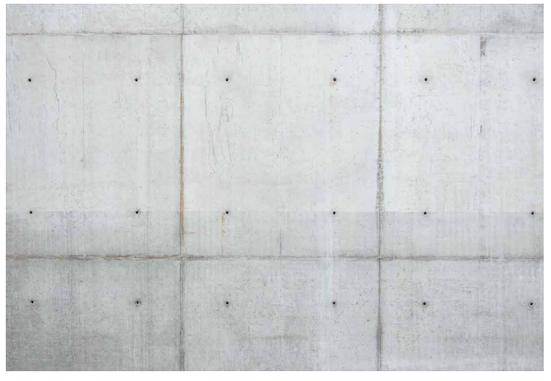
SURFMIST

Matt finish Colorbond colour to the 22kV steel cladding only

Muted coloured concrete pigment to upper portion of the 66kV building, inspired by the historic sand mining activity of the site to be tested and used on the upper portion of the 66kV building

Textured precast concrete panel lower portion of the (66kV building only) achieved via sandblasting

Standard roller door in Colorbond 'Basalt' matt finish to 66kV and 22kV elements



Precast concrete panel (transformer firewall, and upper portion of the 66kV building only)

Security fence in natural zinc finish

3.2.5 Photomatch/artist impression

A series of photos were taken to determine the level of visibility the proposal will have from the surrounding public realm.

Photographs have been taken at 1.6m in height with a 50mm lens with the intention of creating a photomatch/artist impression of the potential view of the network support facility. 3D cameras were placed using each photos GPS coordinates meta data. 3D camera placement were refined using provided georeferenced mesh and satellite imagery data to enable accuracy through the photomatch process.

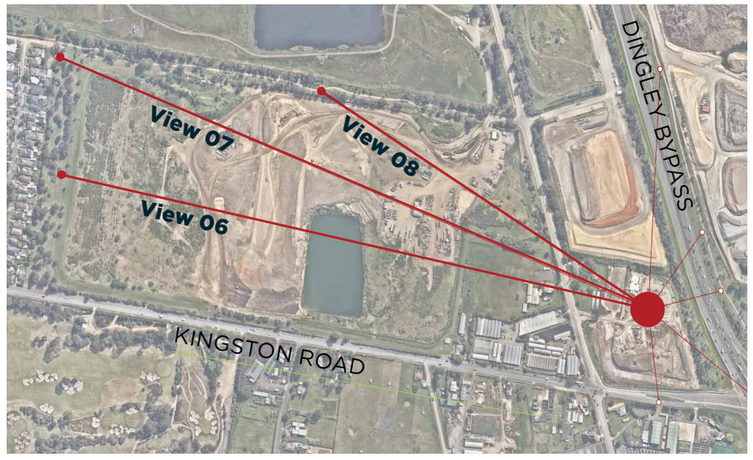
As outlined earlier in this UDLP, some tree removal is planned across the project, in particular along the Dingley Bypass boundary. For clarity, all trees were digitally removed from the photographs and trees intended to be retained were replaced with 3D tree models to better articulate tree retention/removal (based on canopy height, width, species, and tree coordinate data provided).

<u>Henry Street Linear Reserve and Kingston Walk Linear Reserve</u>

Based on a detailed review, it has been determined that:

- The proposal will not be visible from the Kingston Walk Linear Reserve (Figure 20)
- The proposal will not be visible from the Henry Street Linear Reserve (small local playground) (Figure 22)
- The proposed 66kV building only becomes visible to the reserve towards the eastern end of Henry Street Linear Reserve (Figure 23)
- Figure 14 (right) shows where the 66kV building will be visible at the eastern end of Henry Street. As the image demonstrates, the visibility will be limited, given the 450m (proximate) distance to the building, as well as the number of existing canopy trees which will assist in screening the building.
- The large canopy trees located along the Henry Street Linear Reserve interface, as well as the approximate 450m separation to the 66kV building, ensures that it does not appear visually dominant. Only glimpses of the upper portion of the building will be visible between tree canopies. These views will be further softened by the light coloured textured concrete formliner that has been used to reference the surrounding context. This is consistent with existing glimpses of views to industry and works occurring at the stabling facility in Heatherton.

A series of photomatch/artist impressions show the extent of visibility of the proposed building to both reserves in more detail within Appendix C.



Key Plan

Figure 21. View from the Kingston Walk Linear Reserve showing that the 66kV building will not be visible (location in yellow dotted lines for clarity). This is shown as 'View 06' on the key plan.

Figure 22. View from the Henry Street Linear Reserve (small local playground) showing that the 66kV building will not be visible (location in yellow dotted lines for clarity). This is shown as 'View 07' on the key plan.

Figure 23. View from the Henry Street Linear Reserve showing that the 66kV building will only be partially visible in this location (location in yellow dotted lines for clarity). This is shown as 'View 08' on the key plan.

Kingston Road

Similar to Dingley Bypass interface, 2.4m high chain link fence with high quality branded visual fabric wraps around the southern perimeter of the broader Stabling Facility.

As seen in Figure 24, from the corner of the Dingley Bypass and Kingston Road, existing vegetation planned to be retained assists in screening the 66kV building from this location. Where it is visible, the upper portion of the building, being finished to assist in it appearing to recede into the skyline, will be softened by tree canopies.

Figure 25 shows the upper portion of the 66kV building visible in this location. With the variety of construction activities likely occurring between the building and Kingston Road in future as part of broader construction activities of the Stabling Facility at Heatherton, some visual screening and separation of the building when viewed from Kingston Road will also screen this view. There is also an approximate 120m separation between Kingston Road and the 66kV building. There is no pedestrian or cyclist infrastructure along Kingston Road, and views through to the site will be from vehicles only in this location.

A series of photomatch/artist impressions show the extent of visibility of the proposed building to both locations in more detail within Appendix C.

Key Plan

Figure 24. View from the pedestrian island at the Dingley Bypass and Kingston Road intersection, showing the limited visibility of the 66kV building due to the retained vegetation in this location. This is shown as 'View 04' on the key plan.

Figure 25. View from Kingston Road (image taken on the southern verge) showing the visibility of the 66kV building behind the perimeter 2.4m high chain link fence with high quality branded visual fabric in this location. This is shown 'View 05' on the key plan.

Dingley Bypass

Contextually, the Dingley Bypass is a major arterial road, with three lanes in each direction, a central grassed median, and landscaping and grassed verges on either side. Vehicles travel along the Dingley Bypass at 80km per hour, and the context of the surrounding area is semi rural.

At its closest point, the 66kV building is separated by approximately 80m to the closest northbound lane along the Dingley Bypass. This is buffered by a 2.4m high chain link fence with high quality branded visual fabric.

There is no footpath on the western side of the Dingley Bypass, meaning that the building will only be seen from this distance by people in vehicles travelling along the Dingley Bypass at passing speed. There is a shared user path (SUP) located on the eastern side of the Dingley Bypass, where pedestrians and cyclists may also view the network support facility, however from a further distance away.

Noting that the Stabling network support facility will be visible from the Dingley Bypass, the 66kV building has been architecturally treated to ensure that its presentation is contextually appropriate and that it does not appear overly utilitarian in nature.

The lower portion of the 66kV building and the 22kV building will be buffered in their presentation by the existing 2.4m high chain link fence with high quality branded visual fabric. Only small portions of the upper half of the 66kV building, with its precast concrete formliner panels will be visible. The precast concrete formliner panels on the upper portion of the 66kV building, and the upper portion of the 22kV building (finished in light coloured steel) will be visible from this location. However, the treatment of the upper level of the 66kV building finished in a muted colour with precast concrete formliner panels will assist in minimising the adverse perception of the building and ensuring they recede into the sky. Vertical roller doors, louvres and vents are proposed to be finished in a dark colour, will also break up the horizontal mass of the building.

Photomatch/artist impressions prepared and shown in Figure 26 and Figure 27 and shown in Appendix A show the extent of visibility of the building, should all vegetation approved for removal in Early Works be removed. It shows that the remaining vegetation north of the Stabling network support facility still plays an important role in softening the views of the building, while the retained vegetation adjacent the building only marginally screens the view to the buildings.

A series of photomatch/artist impressions show the extent of visibility of the proposed building to the Dingley Bypass in more detail within Appendix C.

Key Plan

Figure 26. View from the shared user path on the eastern side of the Dingley Bypass showing the visibility of the 66kV building in this location. This is shown as 'View 03' on the key plan.

Figure 28. View from the shared user path on the eastern side of the Dingley Bypass shared use showing the minimal visibility of the 66kV building in this location. This is shown as 'View 01' on the key plan.

Figure 27. View from the shared user path on the eastern side of the Dingley Bypass showing the partial visibility of the 66kV building in this location. This is shown as 'View 02' on the key plan.

3.2.6 Safety, Security and Lighting

The Stabling network support facility will not be accessible to the public, and will only be accessible for the operator of the facility for maintenance. Notwithstanding, safer design principles outlined at Objective 4.4 and Benchmark 5.1.10 of the UDS have been incorporated as much as practicable, which includes providing clear sight lines within the facility, as well as lighting for when the facility is in use.

A 3m high fence is incorporated around the Stabling network support facility perimeter (inclusive of a 600mm barbed wire topper) to prevent unauthorised access. This fence will be constructed from robust, graffiti resistant materials, discouraging vandalism and facilitating ongoing maintenance.

Sensor lighting will be provided for security purposes, to be triggered only when accessed by the operator for maintenance or if unauthorised access occurs. This will assist in reducing energy usage and minimise potential light pollution and other impacts on the surrounding semi-rural landscape, including areas of habitat within the Henry Street linear reserve.

3.2.7 Landscaping and Screening

Due to the technical requirements for future works occurring within the Stabling Facility at Heatherton during construction of the SRL East, opportunities for provision of landscaping within or directly adjacent to the Stabling network support facility have not been accommodated in the design.

This is due to the following:

- Vehicular access to and from the Stabling network support facility, particularly in terms of turning circles and providing adequate clearance for large vehicles as specified by the future operator
- The constraints associated with planting within the Western Port - Altona - Geelong (WAG) fuel pipeline easement on the eastern boundary and future service corridor to be provided in the Dingley Bypass road reserve directly adjacent.
- The future construction footprint associated with development of the broader Stabling Facility at Heatherton, including access. Whilst the final layout of the Stabling Facility at Heatherton has not yet been determined, the overall area required to accommodate known elements, such as areas of track, shedding, drainage infrastructure, etc. and associated construction requirements precludes the early establishment of permanent landscape buffers and plantings.

The constraints associated with the establishment of landscaping in proximity to the Stabling network support facility have previously been recognised. The endorsed Surface and Tunnel Plans considered this and have not shown a landscape screen in the location between the Stabling network support facility and the Dingley Bypass or Kingston Road. This is in contrast to the other 'edges' of the Stabling Facility at Heatherton, where the endorsed Surface and Tunnel Plans provide a landscape screen.

The future UDLP for the development of the Stabling Facility at Heatherton will look more holistically at the provision of permanent landscaping around the Stabling Facility as well as other architectural treatments as required for the project.

Appendices

Appendix A - UDLP Drawing Set

List of Figures

Drawing Title	Drawing No.	Revision
Proposed Stabling network support facility	322-0434-00-U-04-DR01	C
Proposed 66kV building elevations	322-0434-00-U-04-DR02	E
Proposed Stabling network support facility Southern and Eastern elevation	322-0434-00-U-04-DR03	E
Proposed Stabling network support facility Northern and Western elevation	322-0434-00-U-04-DR04	E
Site location map	322-0434-00-U-04-DR05	C
General arrangement plan	322-0434-00-U-04-DR06	C

Appendix B - Planning Compliance Assessments

Appendix C - Photomatch/Artist Impression

List of Figures

Drawing Title	Drawing No.	Revision
Photomatch location map	322-0434-00-U-04-DR07	B
Photomatch View 01 - Existing	322-0434-00-U-04-DR08	A
Artist Impression View 01 - Proposed	322-0434-00-U-04-DR09	C
Photomatch View 02 - Existing	322-0434-00-U-04-DR10	A
Artist Impression View 02 - Proposed	322-0434-00-U-04-DR11	D
Photomatch View 03 - Existing	322-0434-00-U-04-DR12	A
Artist Impression View 03 - Proposed	322-0434-00-U-04-DR13	D
Photomatch View 04 - Existing	322-0434-00-U-04-DR14	A
Artist Impression View 04 - Proposed	322-0434-00-U-04-DR15	C
Photomatch View 05 - Existing	322-0434-00-U-04-DR16	A
Artist Impression View 05 - Proposed	322-0434-00-U-04-DR17	D
Photomatch View 06 - Existing	322-0434-00-U-04-DR18	A
Artist Impression View 06 - Proposed	322-0434-00-U-04-DR19	B
Photomatch View 07 - Existing	322-0434-00-U-04-DR20	A
Artist Impression View 07 - Proposed	322-0434-00-U-04-DR21	B
Photomatch View 08 - Existing	322-0434-00-U-04-DR22	A
Artist Impression View 08 - Proposed	322-0434-00-U-04-DR23	C

Condensed photomatch methodology:

The purpose of the photomatch is to show the proposed change in the landscape as identified by visual receptors (eyes of people), and therefore the standard height is intended to capture the typical eye height of a person. General guidelines state the camera height should be set at 1.6m, which is typically regarded as the average height of a male (the typical taller / worst-case viewer). Existing photos from various vantage points were taken in this manner.

To ensure an accurate camera match representation, all 2D and 3D model data received from engineers and consultants, including the proposed 66Kv building model, were geo-referenced and placed into geo-location, including additional temporary buildings and surrounding modelling.

In the 3D scene, virtual cameras were positioned to match the photos embedded GPS coordinates meta-data. The virtual camera heights were set 1.6m above ground level, matching in with the existing photograph height.

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Appendices

Appendix A - UDLP Drawing Set

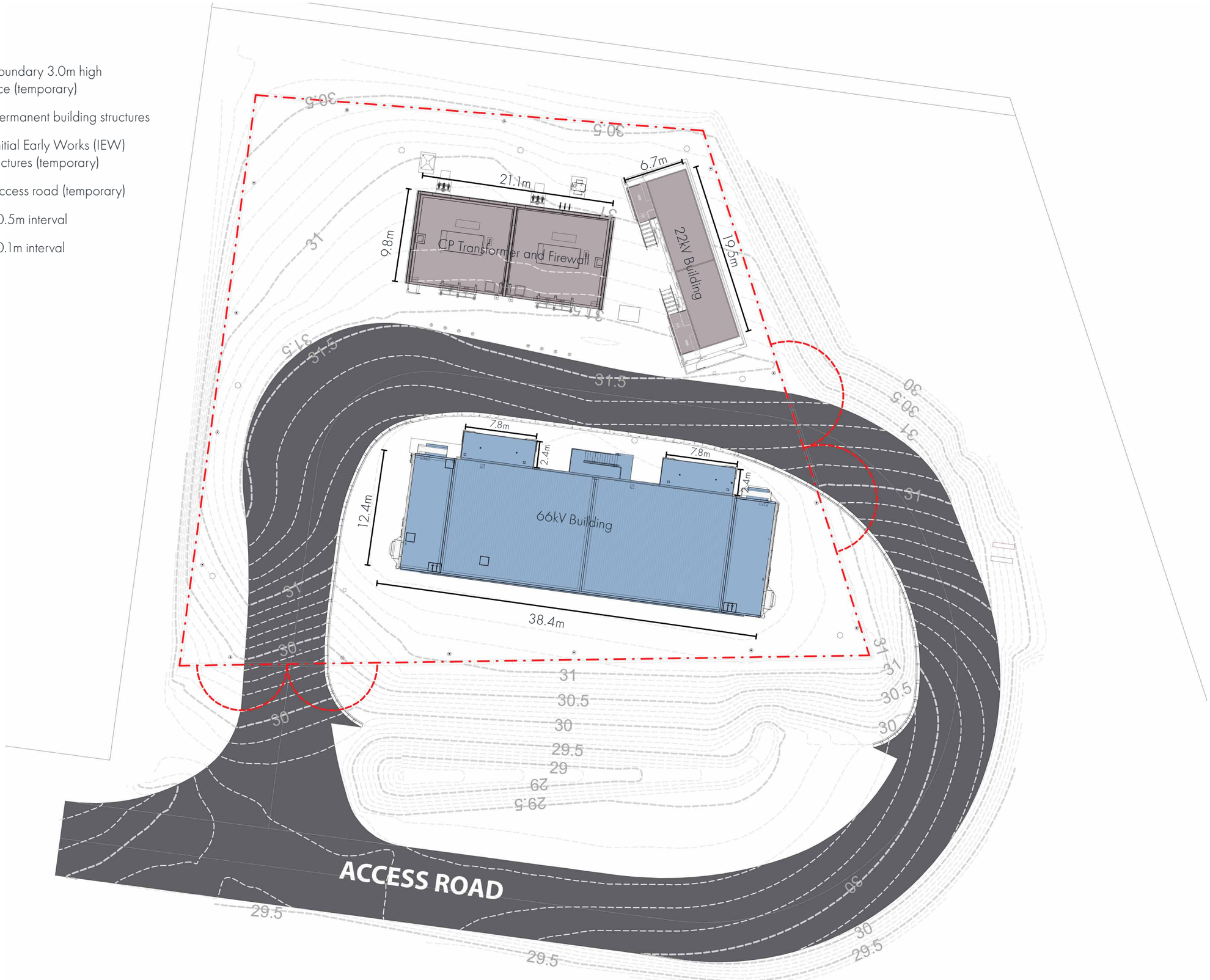
List of Figures

Drawing Title	Drawing No.	Revision
Proposed Stabling network support facility	322-0434-00-U-04-DR01	C
Proposed 66kV building elevations	322-0434-00-U-04-DR02	E
Proposed Stabling network support facility Southern and Eastern elevation	322-0434-00-U-04-DR03	E
Proposed Stabling network support facility Northern and Western elevation	322-0434-00-U-04-DR04	E
Site location map	322-0434-00-U-04-DR05	C
General arrangement plan	322-0434-00-U-04-DR06	C

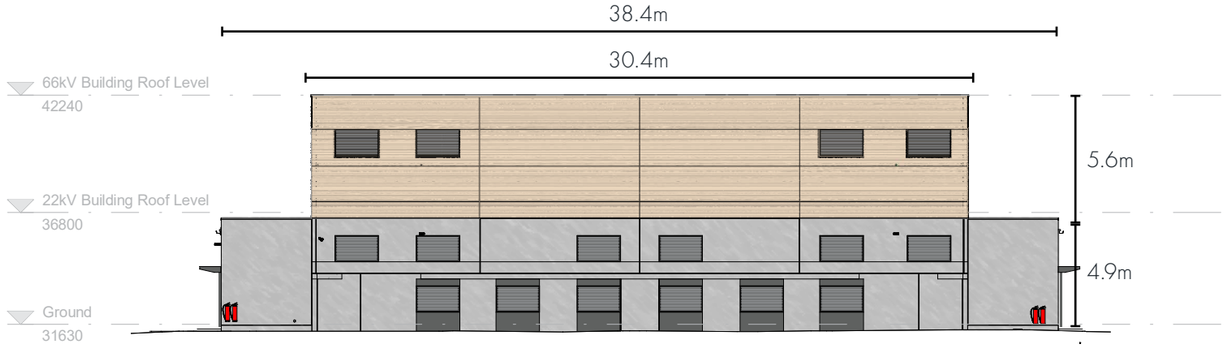
Tract

LEGEND

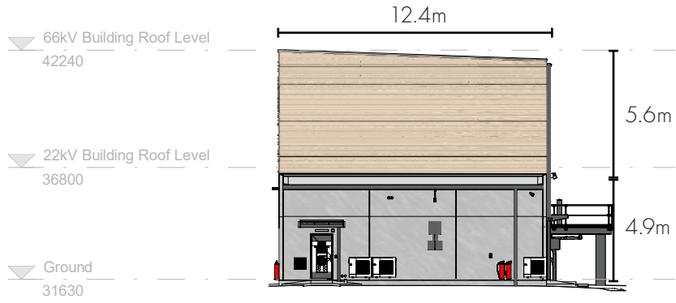
- UDLP site boundary 3.0m high security fence (temporary)
- Proposed permanent building structures
- Proposed Initial Early Works (IEW) building structures (temporary)
- Proposed access road (temporary)
- Contours - 0.5m interval
- Contours - 0.1m interval



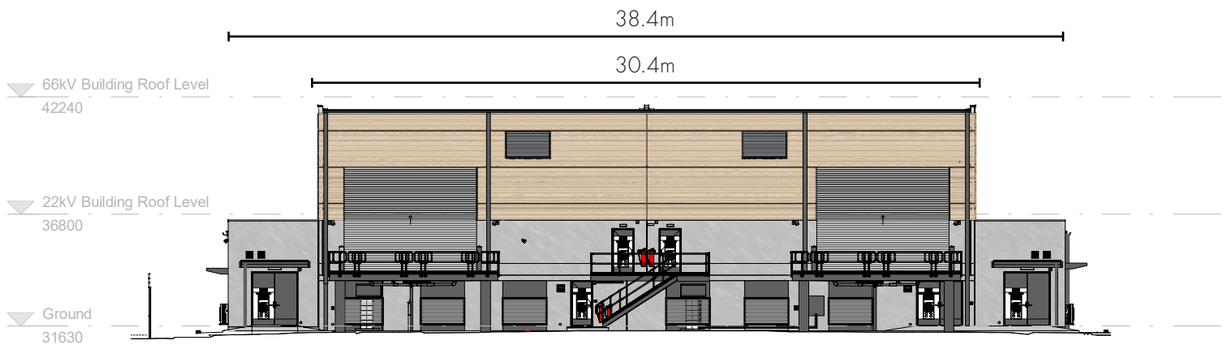
Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Proposed Stabling Network Support Facility	Stabling Network Support Facility	323-0434-00-U-04-DR01	C	04.07.2024	LP	NC	KM	1:400 (A3) 0 4 10 20



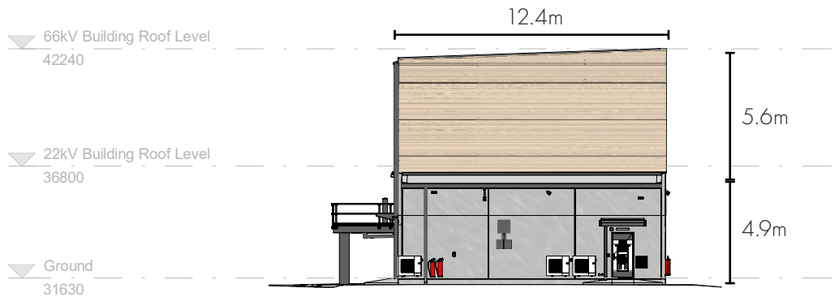
1 SOUTH ELEVATION
- 1 : 200



2 EAST ELEVATION
- 1 : 200



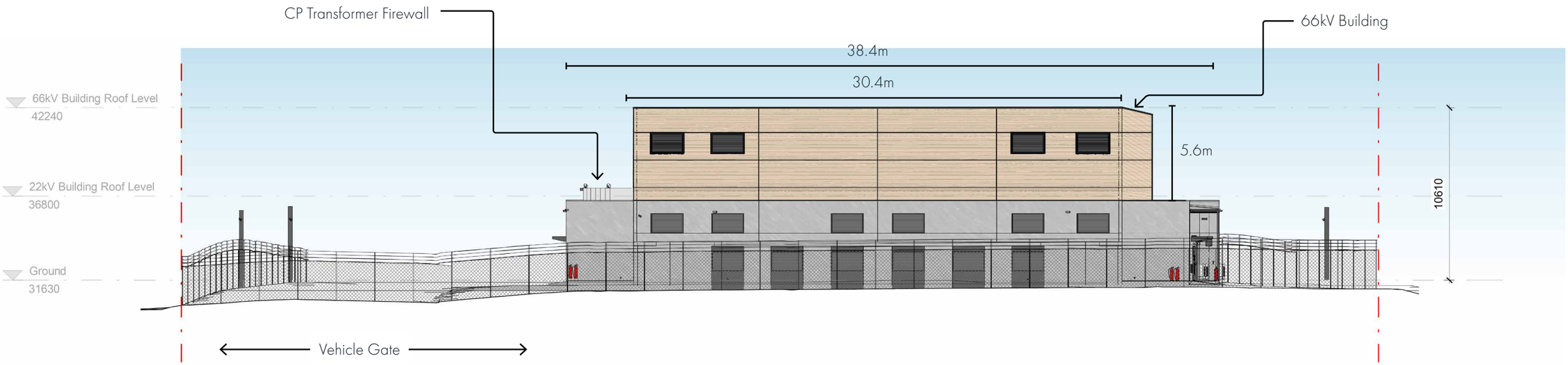
3 NORTH ELEVATION
- 1 : 200



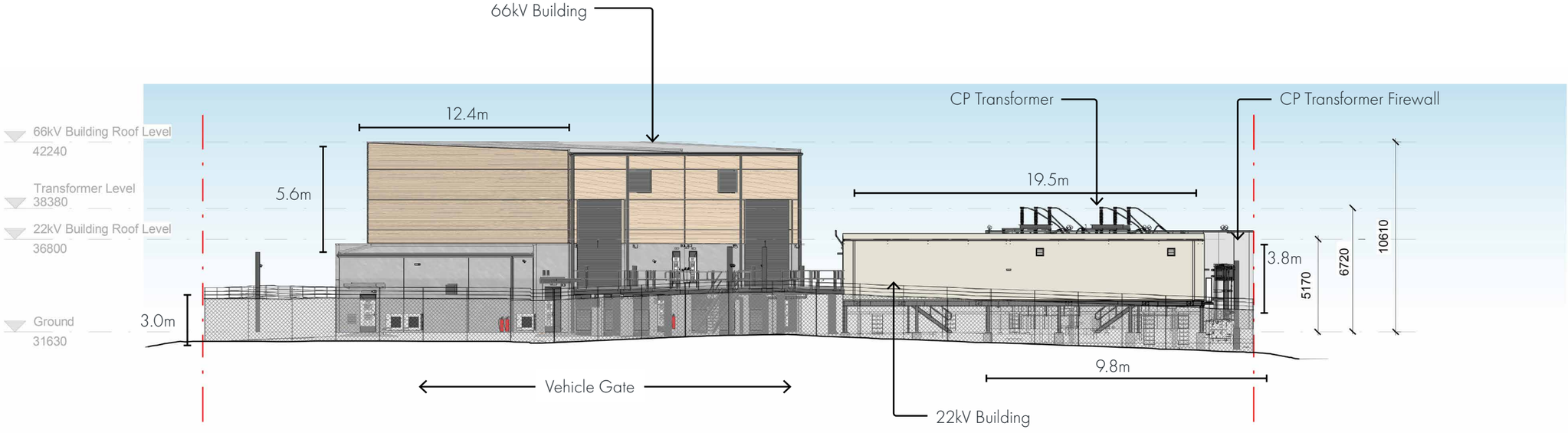
4 WEST ELEVATION
- 1 : 200

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Proposed 66kV building elevations	Stabling Network Support Facility	323-0434-00-U-04-DR02	E	04.07.2024	AH	NC	NC	A3 0 5 10 15

Tract

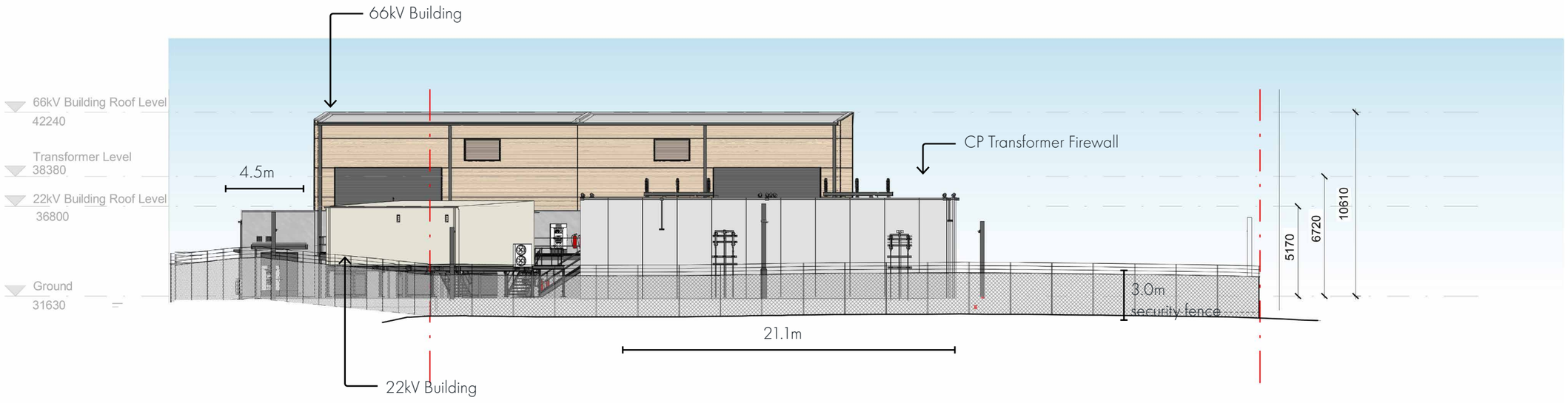


Southern Elevation

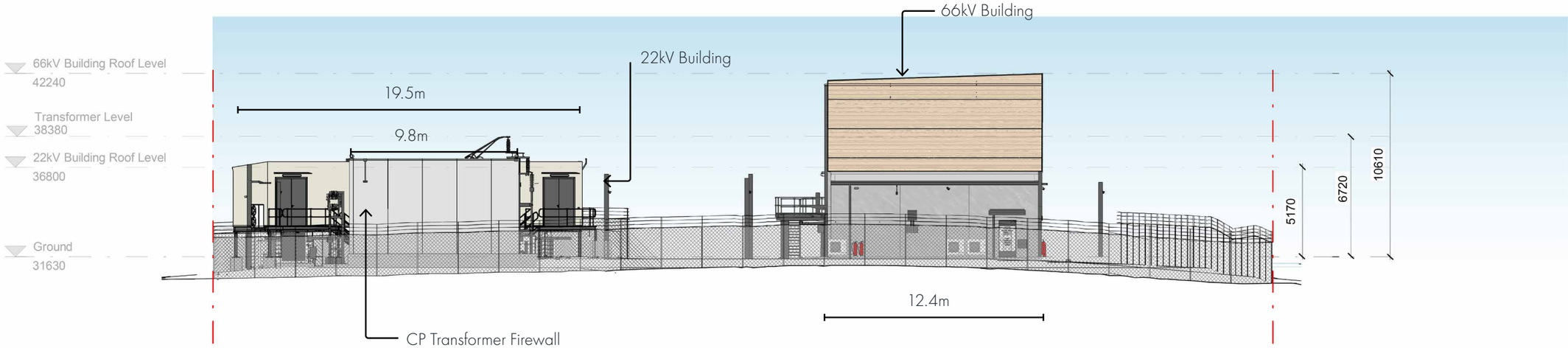


Eastern Elevation

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Proposed Stabling Network Support Facility - Southern and Eastern elevation	Stabling Network Support Facility	323-0434-00-U-04-DR03	E	04.07.2024	AH	NC	NC	A3 0 5 10 15

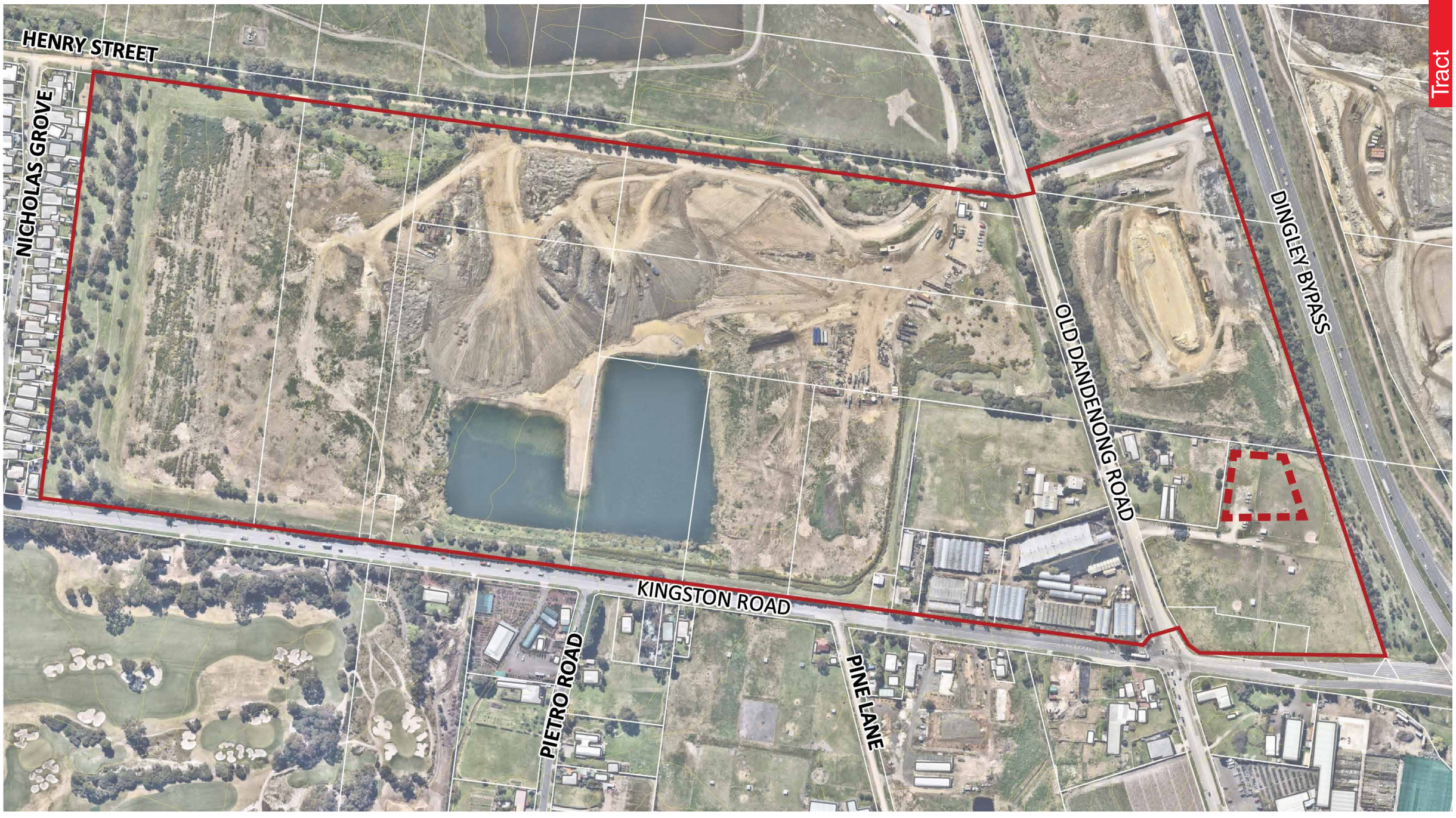


Northern Elevation



Western Elevation

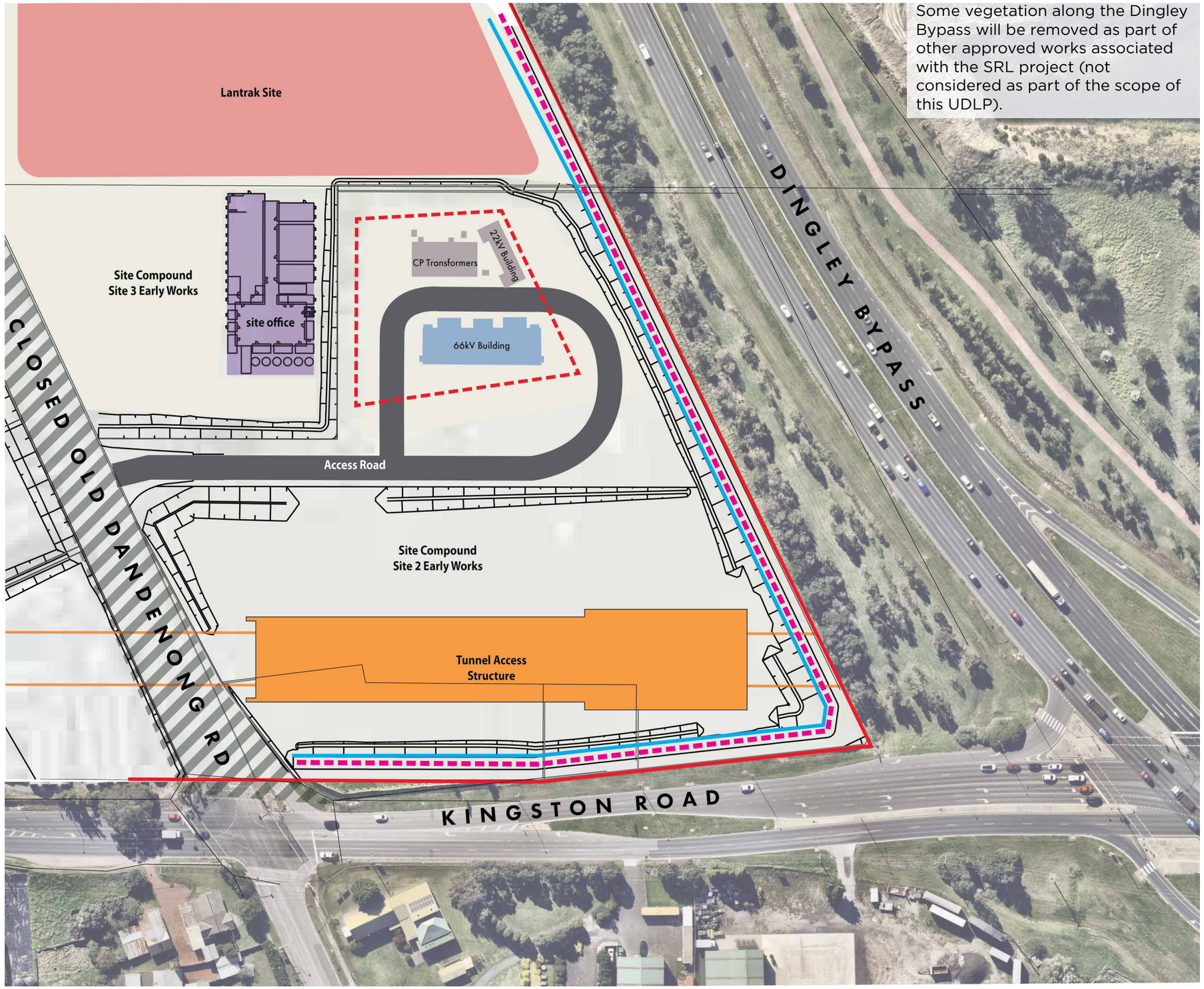
Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Proposed Stabling Network Support Facility - Northern and Western elevation	Stabling Network Support Facility	323-0434-00-U-04-DR04	E	04.07.2024	AH	NC	KM	A3 0 5 10 15



Legend

- Stabling Facility at Heatherton site boundary
- UDLP site boundary

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Site location map	Stabling Network Support Facility	323-0434-00-U-04-DR05	C	04.07.2024	TS	NC	KM	NTS



LEGEND

- Stabling Facility at Heatherton site boundary
- UDLP site boundary (3m high fence)
- Proposed permanent building structures
- Proposed Initial Early Works (IEW) building structures (temporary)
- Proposed access road

Items outside of this UDLP

- Proposed road closure to Old Dandenong Road
- Proposed Westernport–Altona–Geelong (WAG) pipeline route
- 2.4m chainlink mesh fence with fabric visual screening
- SRL track alignment
- Tunnel Access Structure location
- Site office location
- Indicative battering (subject to change)
- Lantrak Site (approximate location)

Tract

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
General arrangement plan	Stabling Network Support Facility	323-0434-00-U-04-DR06	C	04.07.2024	TS	NC	KM	NTS

Appendix B - Planning Compliance Assessments

Appendix C - Photomatch/Artist Impression

List of Figures

Drawing Title	Drawing No.	Revision
Photomatch location map	322-0434-00-U-04-DR07	B
Photomatch View 01 - Existing	322-0434-00-U-04-DR08	A
Artist Impression View 01 - Proposed	322-0434-00-U-04-DR09	C
Photomatch View 02 - Existing	322-0434-00-U-04-DR10	A
Artist Impression View 02 - Proposed	322-0434-00-U-04-DR11	D
Photomatch View 03 - Existing	322-0434-00-U-04-DR12	A
Artist Impression View 03 - Proposed	322-0434-00-U-04-DR13	D
Photomatch View 04 - Existing	322-0434-00-U-04-DR14	A
Artist Impression View 04 - Proposed	322-0434-00-U-04-DR15	C
Photomatch View 05 - Existing	322-0434-00-U-04-DR16	A
Artist Impression View 05 - Proposed	322-0434-00-U-04-DR17	D
Photomatch View 06 - Existing	322-0434-00-U-04-DR18	A
Artist Impression View 06 - Proposed	322-0434-00-U-04-DR19	B
Photomatch View 07 - Existing	322-0434-00-U-04-DR20	A
Artist Impression View 07 - Proposed	322-0434-00-U-04-DR21	B
Photomatch View 08 - Existing	322-0434-00-U-04-DR22	A
Artist Impression View 08 - Proposed	322-0434-00-U-04-DR23	C

Condensed photomatch methodology:

The purpose of the photomatch is to show the proposed change in the landscape as identified by visual receptors (eyes of people), and therefore the standard height is intended to capture the typical eye height of a person. General guidelines state the camera height should be set at 1.6m, which is typically regarded as the average height of a male (the typical taller / worst-case viewer). Existing photos from various vantage points were taken in this manner.

To ensure an accurate camera match representation, all 2D and 3D model data received from engineers and consultants, including the proposed 66Kv building model, were geo-referenced and placed into geo-location, including additional temporary buildings and surrounding modelling.

In the 3D scene, virtual cameras were positioned to match the photos embedded GPS coordinates meta-data. The virtual camera heights were set 1.6m above ground level, matching in with the existing photograph height.

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Photomatch location map	Stabling Network Support Facility	323-0434-00-U-04-DR07	B	04.07.2024	MC	NC	NC	NTS

Tract

Photo taken from the shared user path along the eastern side of the Dingley Bypass with a 50mm lens.

Key Plan

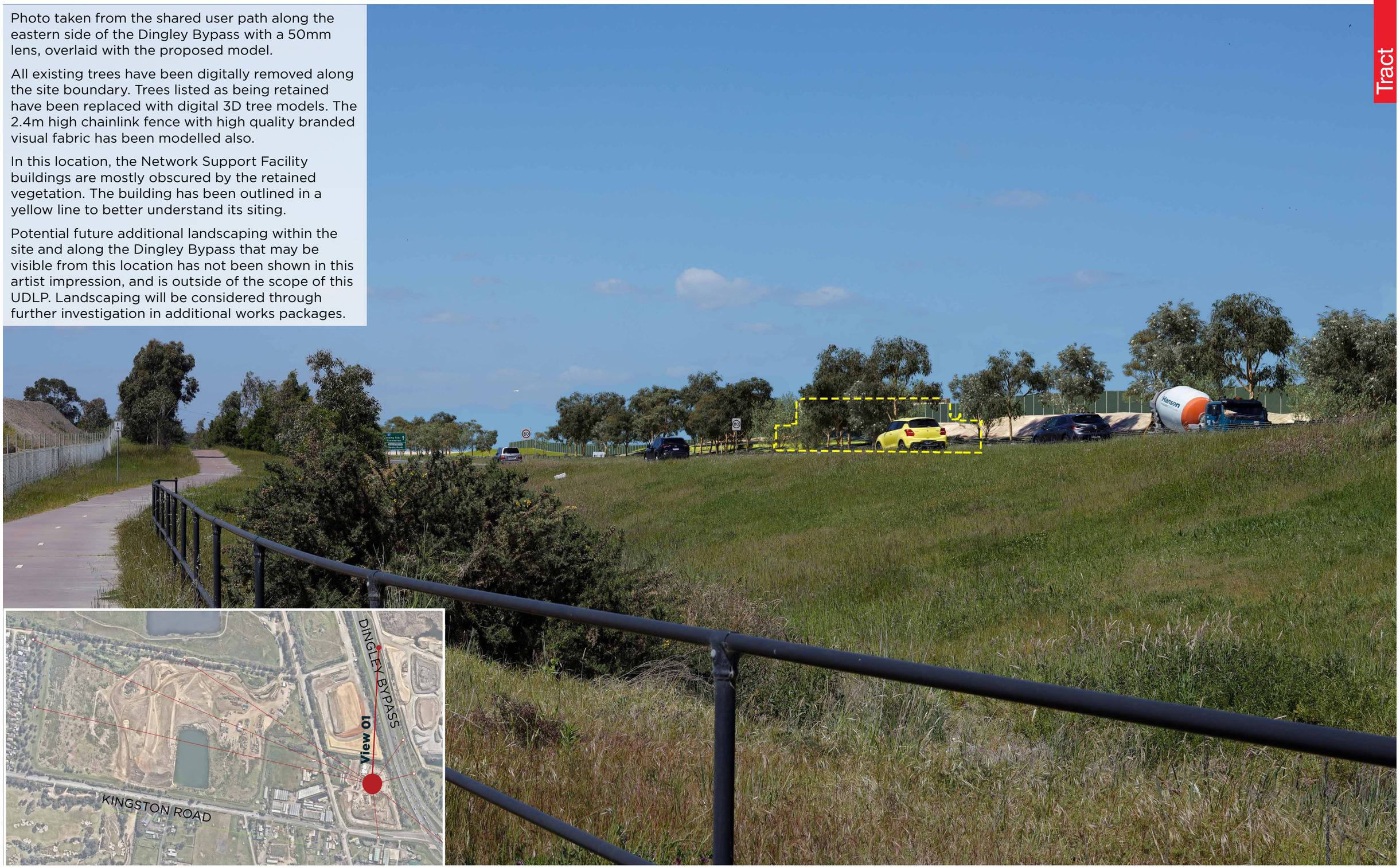
Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Photomatch View 01 - Existing	Stabling Network Support Facility	323-0434-00-U-04-DR08	A	04.07.2024	AS	NC	NC	NTS

Photo taken from the shared user path along the eastern side of the Dingley Bypass with a 50mm lens, overlaid with the proposed model.

All existing trees have been digitally removed along the site boundary. Trees listed as being retained have been replaced with digital 3D tree models. The 2.4m high chainlink fence with high quality branded visual fabric has been modelled also.

In this location, the Network Support Facility buildings are mostly obscured by the retained vegetation. The building has been outlined in a yellow line to better understand its siting.

Potential future additional landscaping within the site and along the Dingley Bypass that may be visible from this location has not been shown in this artist impression, and is outside of the scope of this UDLP. Landscaping will be considered through further investigation in additional works packages.



Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression View 01 - Proposed	Stabling Network Support Facility	323-0434-00-U-04-DR09	C	04.07.2024	AS	NC	NC	NTS

Tract

Photo taken from the shared user path along the eastern side of the Dingley Bypass within a 50mm lens.

This photo shows the existing conditions, including barriers and scaffolding for Initial and Early Works at Heatherton. These existing conditions are temporary in nature and have been edited out of the proposed Network Support Facility image on the following page

Tract

Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Photomatch View 02 - Existing	Stabling Network Support Facility	323-0434-00-U-04-DR10	A	04.07.2024	AS	NC	NC	NTS

Photo taken from the shared user path along the eastern side of the Dingley Bypass with a 50mm lens, overlaid with the proposed model.

All existing trees have been digitally removed along the site boundary. Trees listed as being retained have been replaced with digital 3D tree models. The 2.4m high chainlink fence with high quality branded visual fabric has been modelled also.

In this location, the Network Support Facility buildings are mostly obscured by the retained vegetation. The building has been outlined in a yellow line to better understand its siting.

Potential future additional landscaping within the site and along the Dingley Bypass that may be visible from this location has not been shown in this artist impression, and is outside of the scope of this UDLP. Landscaping will be considered through further investigation in additional works packages.

Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression View 02 - Proposed	Stabling Network Support Facility	323-0434-00-U-04-DR11	D	04.07.2024	AS	NC	NC	NTS

This image represents five photos taken at equal 10 degree increments on a levelled tripod from the shared user path along the eastern side of the Dingley Bypass with a 50mm lens stitched together into a 80 degree panoramic view.

This photo shows the existing conditions, including barriers and scaffolding for Initial and Early Works at Heatherton. These existing conditions are temporary in nature and have been edited out of the proposed Network Support Facility image on the following page.

Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Photomatch View 03 - Existing	Stabling Network Support Facility	323-0434-00-U-04-DR12	A	04.07.2024	AS	NC	NC	NTS

Tract

This image represents five photos taken at equal 10 degree increments on a levelled tripod from the shared user path along the eastern side of the Dingley Bypass with a 50mm lens stitched together into a 80 degree panoramic view.

All existing trees have been digitally removed along the site boundary. Trees listed as being retained have been replaced with digital 3D tree models. The 2.4m high chainlink fence with high quality branded visual fabric has been modelled also.

In this location the Network Support Facility buildings are visible due to the limited amount of retained vegetation.

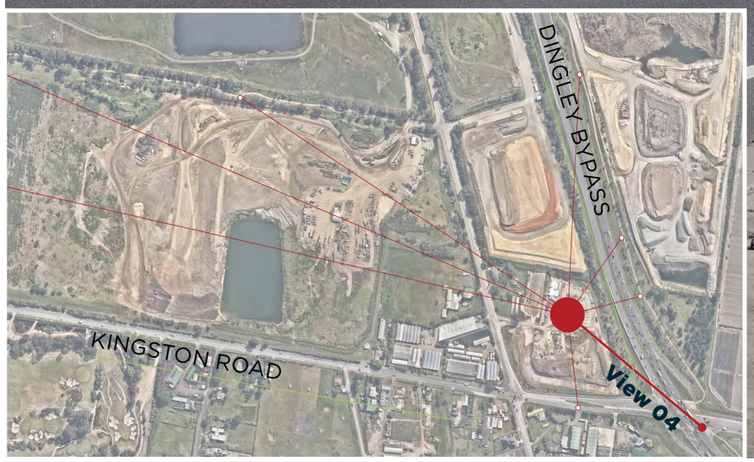
Potential future additional landscaping within the site and along the Dingley Bypass that may be visible from this location has not been shown in this artist impression, and is outside of the scope of this UDLP. Landscaping will be considered through further investigation in additional works packages.

Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression View 03 - Proposed	Stabling Network Support Facility	323-0434-00-U-04-DR13	D	04.07.2024	AS	NC	NC	NTS

Photo taken from the pedestrian refuge at the intersection of Dingley Bypass and Kingston Road with a 50mm lens.

This photo shows the existing conditions, including Initial and Early Works being undertaken at 217 Kingston Road, Heatherton. These existing conditions are temporary in nature and have been edited out of the proposed Network Support Facility image on the following page



Key Plan

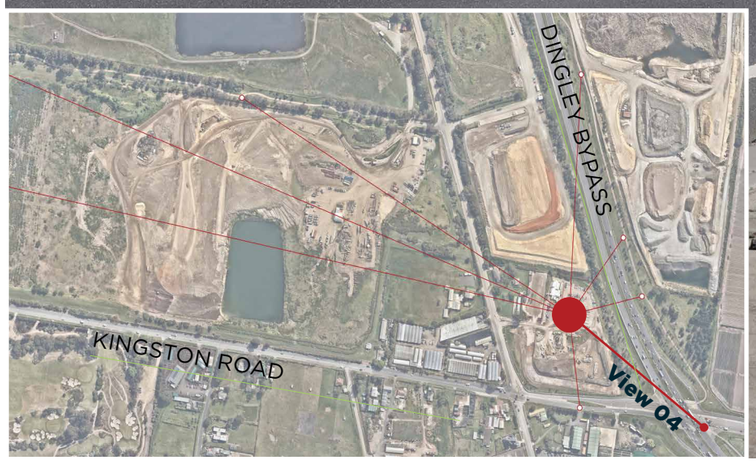
Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Photomatch View 04 - Existing	Stabling Network Support Facility	323-0434-00-U-04-DR14	A	04.07.2024	AS	NC	NC	NTS

Tract

Photo taken from the pedestrian refuge at the intersection of Dingley Bypass and Kingston Road with a 50mm lens. All existing trees have been digitally removed along the site boundary. Trees listed as being retained have been replaced with digital 3D tree models. The 2.4m high chainlink fence with high quality branded visual fabric has been modelled also.

In this location, the Network Support Facility buildings are mostly obscured by the retained vegetation. The building has been outlined in a yellow line to better understand its siting.

Potential future additional landscaping within the site and along the Dingley Bypass that may be visible from this location has not been shown in this artist impression, and is outside of the scope of this UDLP. Landscaping will be considered through further investigation in additional works packages.



Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression View 04 - Proposed	Stabling Network Support Facility	323-0434-00-U-04-DR15	C	04.07.2024	AS	NC	NC	NTS

Tract

Tract

Photo taken from the Kingston Road verge with a 50mm lens.

This photo shows the existing conditions, including Initial and Early Works being undertaken at 217 Kingston Road, Heatherton. These existing conditions are temporary in nature and have been edited out of the proposed Network Support Facility image on the following page

Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Photomatch View 05 - Existing	Stabling Network Support Facility	323-0434-00-U-04-DR16	A	04.07.2024	AS	NC	NC	NTS

Photo taken from the Kingston Road verge with a 50mm lens, overlaid with the proposed model including all trees removed and the trees listed as being retained replaced with digital 3D models. The 2.4m high chainlink fence with high quality branded visual fabric has been modelled also.

In this location, the bottom half of the 66kv building is mostly obscured by the 2.4m high chainlink fence with high quality branded visual fabric. The upper portion of the 66kV building clad in light coloured perforated steel panels is mostly visible. The 22kV building and transformer firewall are not visible in this location.

Potential future additional landscaping within the site and along Kingston Road that may be visible from this location has not been shown in this artist impression, and is outside of the scope of this UDLP. Landscaping will be considered through further investigation in additional works packages.

Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression View 05 - Proposed	Stabling Network Support Facility	323-0434-00-U-04-DR17	D	04.07.2024	AS	NC	NC	NTS

Photo taken from the Kingston Walk Linear Reserve path with a 50mm lens.

Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Photomatch View 06 - Existing	Stabling Network Support Facility	323-0434-00-U-04-DR18	A	04.07.2024	AS	NC	NC	NTS

Tract

Photo taken from the Kingston Walk Linear Reserve path with a 50mm lens overlaid with the proposed model.

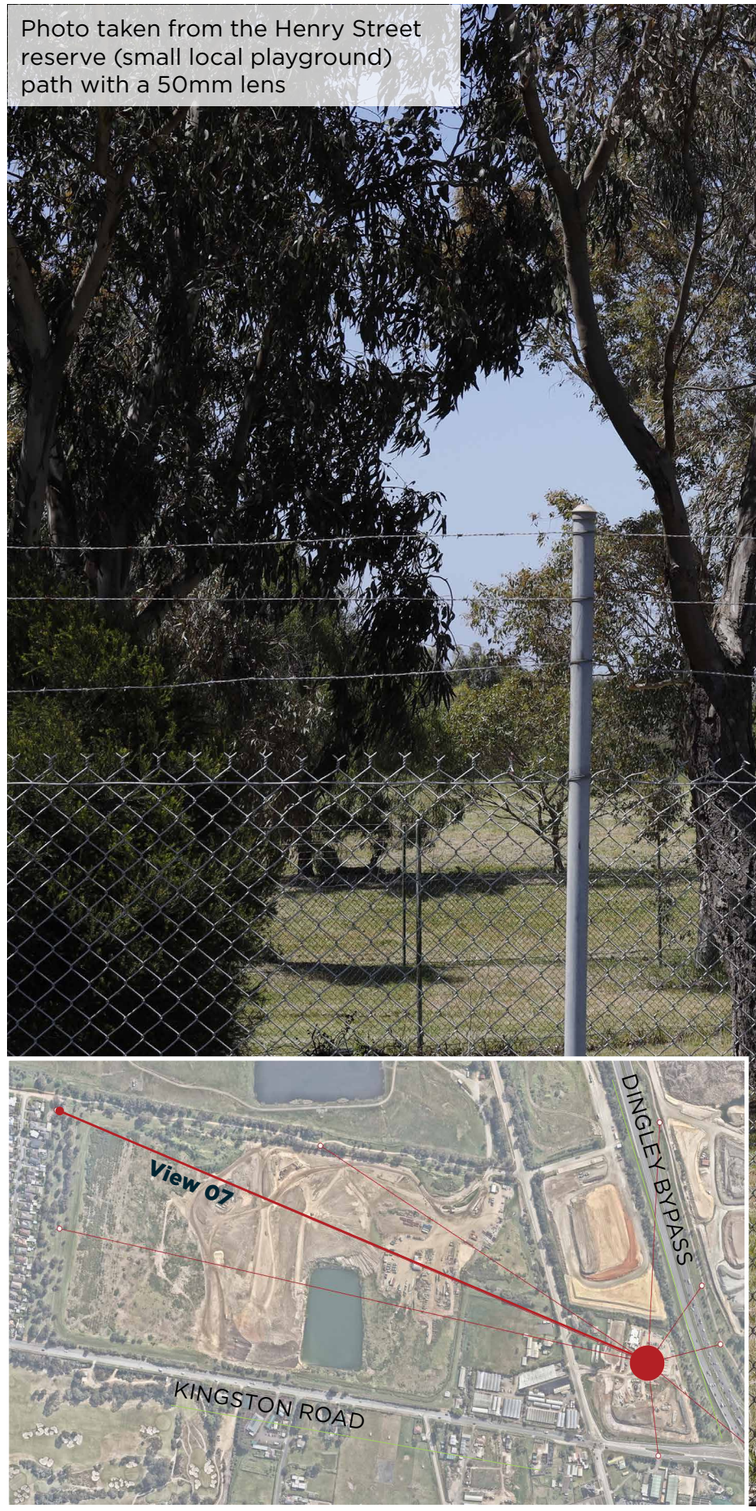
In this location, the building is obscured by the existing landform, which is not proposed to change. The building has been outlined in a yellow line to better understand its siting.

Potential future additional landscaping within the site that may be visible from this location has not been shown in this artist impression, and is outside of the scope of this UDLP. Landscaping will be considered through further investigation in additional works packages.

Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression View 06 - Proposed	Stabling Network Support Facility	323-0434-00-U-04-DR19	B	04.07.2024	AS	NC	NC	NTS

Photo taken from the Henry Street reserve (small local playground) path with a 50mm lens



Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Photomatch View 07 - Existing	Stabling Network Support Facility	323-0434-00-U-04-DR20	A	04.07.2024	AS	NC	NC	NTS

Tract

Photo taken from the Henry Street reserve (small local playground) path with a 50mm lens, overlaid with the proposed model.

In this location, the building is obscured by the existing landform, which is not proposed to change. The building has been outlined in a yellow line to better understand its siting.

Potential future additional landscaping within the site that may be visible from this location has not been shown in this artist impression, and is outside of the scope of this UDLP. Landscaping will be considered through further investigation in additional works packages.

Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression View 07 - Proposed	Stabling Network Support Facility	323-0434-00-U-04-DR21	B	04.07.2024	AS	NC	NC	NTS

Photo taken from the Henry Street Linear Reserve path with a 50mm lens.

Key Plan

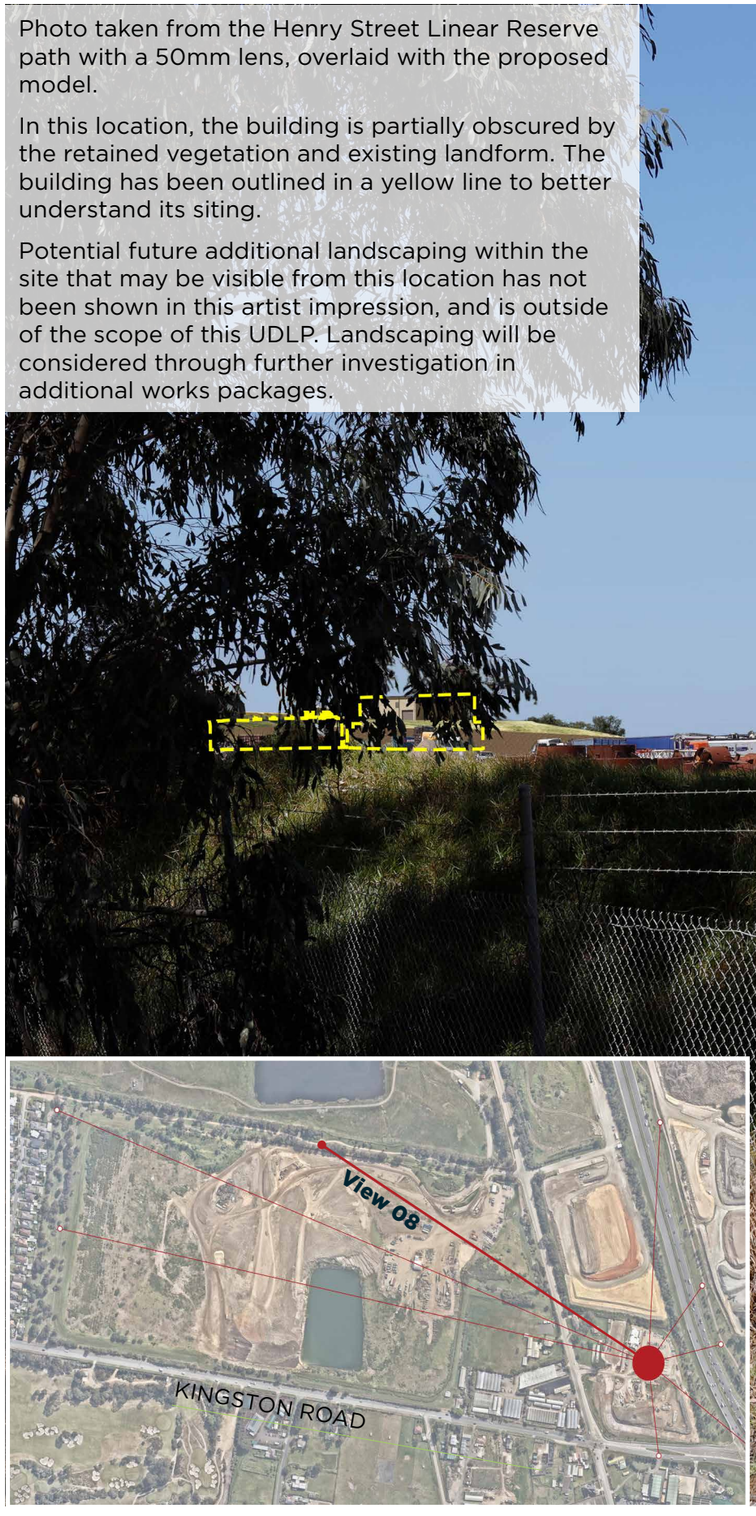
Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Photomatch View 08 - Existing	Stabling Network Support Facility	323-0434-00-U-04-DR22	A	04.07.2024	AS	NC	NC	NTS

Tract

Photo taken from the Henry Street Linear Reserve path with a 50mm lens, overlaid with the proposed model.

In this location, the building is partially obscured by the retained vegetation and existing landform. The building has been outlined in a yellow line to better understand its siting.

Potential future additional landscaping within the site that may be visible from this location has not been shown in this artist impression, and is outside of the scope of this UDLP. Landscaping will be considered through further investigation in additional works packages.



Key Plan

Drawing Title	Project Name	Drawing No.	Revision	Date	Drawn	Checked	Project Principal	Scale
Artist Impression View 08 - Proposed	Stabling Network Support Facility	323-0434-00-U-04-DR23	C	04.07.2024	AS	NC	NC	NTS